

FIRST CHECK WHAT'S IN THE BOX: A TECHNOLOGIST'S MAKING OF PAKISTAN



AN AUTOBIOGRAPHY OF
Engr. MASOOD HASAN

First Check What's In The Box: A Technologist's Making of Pakistan

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CHEM-1

**First Check What's in the Box: A Technologist's Making of Pakistan,
An Autobiography of Engr. Masood Hasan Chem-1**

First Edition 2020

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Cover Photo

Masood Hasan participating in a Group 82 discussion; a forum started by Hafiz Kardar

DEDICATION

This book is dedicated to the future of a Pakistan where there will be Equity (*Istehsan*) practised in Accountability Courts

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If you have a perceptive mind it is sufficient

– A. J. Arberry

*The most vulnerable prove the most
intractable*

– Masood Hasan

*Scientific research is to advance
knowledge; technology is to advance
the human condition; education
enables individuals to fulfill their
human potential and training prevents
obsolescence of the mind during
professional life and to open windows*

– Masood Hasan

FOREWORD

The title *First Check What's in the Box: A Technologist's Making of Pakistan*, an Autobiography of Masood Hasan embodies all the silent efforts of our beloved father, who let others take full credit, as long as the results were achieved. Always giving credit to others, it did evoke controversy and ensured the project got completed with least time wasted. So fully cognisant of his seminal contributions, this book's title is an 'award' given by his family from which he would privately always side step. Nada, the younger daughter often observed that father would often quiz if one would only know what is inside the box first before thinking outside it; hence this is embodied in the title of this autobiography! The *Technologist's Making of A Nation* part of the caption was suggested by Dr Faiz Philip Henderson, his son in law in recognition of Masood Hasan's seminal contributions to Pakistan industry. As you read on, all the more reason to say it as facts unfold as the reality surely uncovers!

Published posthumously the typescript is in father's very own words that started in 2015 as an Oral History project by the Citizen's Archive of Pakistan (CAP) which was converted to typescript and completed by his daughter Naveed in 2020 before his passing away. Without the CAP's start up these words may well have been lost to posterity. Hence, this is his autobiography since all the words are his alone. Given his reluctance to self project, he probably considered an autobiography as going against his grain. However, with his wife Dr Rafia Hasan's regular reminders to do so, and the CAP's ten hours recording of his life narrative was a God sent as it gave Nada an idea to convert all his words to typescript. As a consequence the narrative will seem conversational as if he is addressing us with repetition as well. He was also fortunate enough to read the first printed draft where he made hand written edits and gave instructions for the final version. We appreciate the valuable contribution of Aamir Ali in editing and designing the book.

Upon our father's request to his elder daughter Naveed, in March 2020, he expressed the wish that he preferred to be defined by his achievements and professional contributions with his personal life events to be there as an addendum and that her PhD training would ensure she would be able to juxtapose his life's achievements accordingly. Hence his Bio data, Education and Achievements precede the general political scenario at various times. It was his desire to include the essence of his three articles here, which is the case and additionally they are included as a whole at the end of this book entitled *The Systems Approach to Administrative Modernisation, Why Good Governance Eludes Us and Messing In Pakistan* and his 85 articles in the newspapers and other publications are also downloadable at <https://www.emmayassociates.com/list-of-publications.php/1/>

The adventure and melody of his life started in the house where he was born in Lucknow where his grandfather Maulvi Abdul Ghani a High Court judge affectionately called Baba dear had recently then constructed a 17 bedroom house on Way Road, Butler Ganj. Amongst his early life experiences, his main one that led to his character formation was during the schooling at Doon School in Dehradun. The Doon, was a school which equitably dealt with its boys regardless of their caste, creed and colour and had a strong tilt towards community social responsibility.

In his post consultancy Emmay Associates years at the start of each morning would be a long training session of the near illiterate handyman named Mehmud on the merits of keeping a written record of his blood pressure reading. Mehmud's silent expression of laboured respect on this matter was priceless. In the corporate and Defence Production world such was the recurring theme of his life to train the human mind to recognise and manage as the scale of problems multiplied and expanded. (He uniquely called problems ensuing with change in scale a "Qualitative Shift"! He invented the organic term Qualitative Shift and its application to growing organisations). The Systems designs have to be there and the public pushes you to do these things and only then you are in

a position to get results. He emphasised that the moment you can make about 70 percent of a complex weapons system, then you are self reliant because you can exchange technologies with other countries and that's how you can acquire them by saying what all you can do for them.

The civilian side does not know enough about how the Armed Forces go about doing their homework – if they did then a number of problems that we have got on the civil and the military side to work together would really disappear. In his own words “Again out here I had a good commercial relationship with Admiral Shareef who was the Chief of Naval Staff and the project was handled by the civilian side. It had not happened before and we entered into an advantageous civil contract with the French agency for refitting it at Toulon, the Naval port there and in 15 months the whole thing was done”.

What is Justice With Equity: Repetitive Themes (by design) across chapters on the Accountability of the Executive Residing With the Executive For example successfully implemented *Ijتهاد* in Islam from the *Muzalim* Courts pioneered by the Holy Prophet (pbuh) and Hazrat Ali and adopted by Napoleon following Islamic Fiqh. Are the French even aware? He was a strong advocate of commercial discipline, upon military discipline being an unbeatable combination. Masood Hasan's experience with the military as Secretary Defence Production and his previous experience with industry had made it patently clear to him that as long as commercial discipline was on top of military discipline it would always be an unbeatable combination spelling success. And this he clearly expressed applied to all institutions in Pakistan, governmental and non governmental and from his personal experience. In the Navy a 5000 tonne tanker U-turn takes several kilometres to complete but in administration immediate decisions have to be made before Wall Street or Nasdaq woke up the following morning.

He said, “But the fact is that all these big projects that you see today came up in my time” (referring to the Defence Production Projects).

He said that no one can deny that the two of the three traditional pillars of state are being needled by the judiciary, which is fighting a valiant battle to ensure its own survival for all of us. For survival it is. No one can deny that the executive arm of the government is chasing its own tail in a fog of hypocrisy. This is reflected in several of the well known scams, the circular debt, inaction by our water losses to counter Indian water terrorism (eg Baghliar). Ombudsman was an *Ombudsmouse* as he had no real powers. Masood Hasan was a strong proponent of the accountability of the Executive residing with the executive and of Standard Operating Procedures (SOPs).

Father's thoughts on Allama views on Spiritual Democracy and Tennyson's poem which he likened to *Khudi*:

From 'In Memoriam'

I HELD it truth, with him who sings
To one clear harp in divers tones
That men may rise on stepping stones
Of their dead selves to higher things

Allama Iqbal said that you get it by having an open mind and a flexible intellect and there is a discipline to that and when there was discipline if you go back to the polymaths of olden times, Ibn Rushd (Averroes), Al Beruni, Al Kindi going back to 900 AD had disciplined themselves and followed a methodology and that methodology for a thousand years from Spain to Afghanistan was written in Arabic by Jews, Muslims, Christians and Pagans. The lingua franca of Science for nearly one thousand years was Arabic! Allama Iqbal predicted unless we harness ourselves properly creative thinking will improve our understanding to recognise and react to technological change.

Pakistan came into being starting with the vision of Allama Iqbal (with posthumous prompting by Syed Ahmed Khan). The vision was converted into a Mission to achieve Pakistan by Jinnah, which he achieved. The need in achieving the Mission, led to the definition of the Goals/Objectives that prompted Jinnah's lieutenants to investigate, e.g. electoral alliances. The Muslim League/Congress alliance we know led to the 1937 elections when the Indian National Congress unilaterally jettisoned the Muslim

League leading another route to Pakistan, in which the Muslim youth were also harnessed. The next stage was to work this out to move ahead. This stage was basically of Strategy or allocating resources for whatever had to be physically achieved including, amongst others: naming individuals and defining what they had to do, raising funds, increasing Muslim League membership, organizing processions, preparing memoranda, dealing with the local administrations, checking electoral rolls and arranging transport getting donations. This is the strategisation stage.

To meet the above needs of the Strategy (allocation of resources) detailed instructions had to be worked out, a secretariat and several offices (regional/local) were set up because this is the level where the physical work was actually accomplished. Strategy is therefore more flexible than the other requirements. He emphasised that there are always risks and costs to any programme of action – but they are far less than the long range risks of inaction (comfortable inaction).

You will notice our father Masood Hasan did not speak about his seminal role in establishing the Doon School Society of Pakistan as President and its first project the Chand Bagh School in Muridke Lahore because he was extremely disappointed by the way he and some of his Doon School Society of Pakistan Associates were treated by the sons and family of another Society's founding member. And with it Masood Hasan's dream that the Chand Bagh School would be modelled on an identical model and values of the Doon School Dehradun was forever dashed.

Meticulous editing several times over of the manuscript was done by Nada and full credit to her who gave her everything to attend to father's healthcare regime over a period of two testing years for him where he lamented that "authority forgets a dying King" (Tennyson) ...but giving us valuable bonus years with him, his wisdom, thoughts, insight and the trademark laugh and a gigantic sneeze! As he would say get the work done and you get results!

*Dr Rafia Hasan and Dr Naveed Hasan Henderson and Nada Hasan,
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December 2020*



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BIODATA OF MASOOD HASAN

This is an attempt by me to try to condition your thinking based on what I consider my successful professional track record in both the private and government (1973-78) sectors at the highest possible administrative levels. As a Managing Director in the private sector and as a Federal Secretary in the Ministry of Defence Production where I also had the combined authority of a Secretary and Minister at the outset of Zia ul Haq's Martial Law for three months. Herewith is my bio data which depicts my career over a spectrum of activities. First, as a Chemical Engineer – designing and getting equipment manufactured in the mid 1950s then as a Managing Director controlling factories in the private sector in successful competition with a multinational; as a systems analyst/programmer bringing in Pakistan Air Force and Pakistan Tobacco as first time users into computerisation in the mid 1960s; as a management consultant with the World Bank as my paymasters apart from other international and national agencies, plus the private sector. In the course of my career I have designed and implemented courses for post-graduates in Systems and was also active in helping the first Vice Chancellor of the University of Engineering and Technology to set up its Chemical Engineering Department – in framing curricula and selection of teachers, both as a member of the Board of Studies and Academic Council.

My exposure to the Army, Navy, Air Force and Joint Chiefs was also helpful in developing my views in the stint 1973-78. Projects such as the Pakistan Aeronautical Complex (Kamra), Heavy Industries Taxila (HIT), POFs projects in Havelian, the MFI-17 (Mashak) assembled at Risalpur, the ammunition and fuses set

up at Sanjwal and the Wind Tunnel at Chhattar were rejuvenated and made functional. Got SUPARCO going, which has the distinction of firing the first, albeit unguided missile, in mid 1970s under my guidance. The achievements of the Ministry of Defence Production in 1973-78 period will never be matched. In 1978 I, was the Chairman of the Federal Management Development and Inspection Commission reporting to the CMLA as the first M-1 Officer with powers of a Minister for three months.

Since I had been connected with institutions of higher learning and training with the University of Engineering and Technology and Punjab University, I also helped the Pakistan Administrative Staff College (PASC) and National Institute of Public Administration (NIPA) Lahore in their early years to get it going. I was also a member of PASC's Directing staff. As such I have been involved in not only the education but the training function as well, earlier for the Civil Services Personnel (CSPs), then the District Management Group (DMGs) and then the post General Naqvi NRB devolution personnel that are now (prior to 2015) finding it so difficult to do the right things because of faulty planning.

SUMMARY

60 years experience including equipment evaluation, design and construction, industrial projects, planning and running of industry and defence production units setting up public sector large scale and sophisticated technological units, two Cantonments (Taxila & Kamra), institutional up-gradation and re-organisations, high level negotiations with foreign governments, analysis of government work methods, consultancy for national and international organizations, systems work, computer applications, quality management systems, university teaching and post experience training and setting up of a non-profit Rs 400 million fully residential secondary educational establishment.

DATE OF BIRTH

October 13, 1925

EDUCATION

BSc (Hons) Punjab University 1945

TRAINING

- MSc (Hons) Punjab University 1946
- MS (Chemical Engineering) Case Western Reserve, Cleveland (Ohio) USA 1948
- Certificate in Industrial Training 1951
- Session 39 (GMC) Administrative Staff College Henley-on-Thames UK 1960

ORGANISATIONS ASSOCIATED WITH EDUCATION

REGISTRATIONS

Member Emeritus American Institute of Chemical Engineers (AIChE)

MEMBERSHIPS

- Member Emeritus American Chemical Society (ACS)
- Fellow Pakistan Institute of Chemical Engineers (F-60)
- Fellow Institute of Engineers Pakistan (F-730)
- Registered Chemical Engineering, Pakistan Engineering Council
- (Chem-1)

OTHERS

Sometime **MEMBER: Academic Council/ Board of Studies (University of Engineering & Technology)**, set up courses in Chemical Engineering

- Governing body NIPA Lahore
- Governors Study Group on Toning-up of Administration (W Pakistan 1969)
- Visiting Professor to Departments of Public & Business Administration (Punjab University)
- Set up courses at Pakistan Administrative Staff College

- Lectured at National Defence College Rawalpindi
- Command & Staff College Quetta
- Civil Services Academy
- Finance Services Academy Walton, Academy for Administrative Training Walton
- Army School of Logistics Kuldana

Member Committee on the Reorganization of the Government of the Punjab (1981-1982) and High Powered Committee, Government of the Punjab on Simplification of Procedures and Systems (1981-83)

Member Board of Governors Punjab Engineering Academy (1983-88)

Jauhar Academy (1985)

President Court of Founders Chand Bagh Foundation 1986-2004

Lectured from time to time in several government/semi government and other training establishments

President Pakistan Institute of Chemical Engineers 1979 & 1980

Vice President Institution of Engineers (Pak) 1980-81 & 1984-85

President Engineering Consultants Association of Pakistan 1988-92

President Chand Bagh Foundation (successors to Doon School Society of Pakistan) 1986-2004.

Special Associate to President Chand Bagh Foundation 2004-06.

EXPERIENCE AS HEAD OF ORGANISATIONS AND WORK EXPERIENCE

- **AS A CEO (1979 to lifetime) EMMAY Associates**, directly supervised the following assignments:
- Capital Development Authority: Accounting Systems Study
- Ashiana Cotton Products Ltd: Brought into production 12,500 spindles and introduced systems of control
- A private party: Large truck project

- Fauji Foundation: Re-organisation study (the largest industrial entity in Pakistan)
- Shaheen Foundation: Systems and Procedures study
- World Bank/IBRD: Transport Economic study leading top level reorganization of Pakistan Railways
- National Fertilizer Corporation (NFC): Manning Levels/ Job Evaluation and Management Development Study, NFC HO including Pak Arab/Saudi Fertilizers Ltd (World Bank)
- Army School of Logistics: Assistance in training programmes
- USAID/ARD Irrigation Systems Management and Training
- Overseas Pakistanis Foundation: Feasibility for UHT Milk
- Member Punjab Government High Powered Committee for simplification of Procedures & Systems
- Member High Powered Committee on the Reorganization of the Government of the Punjab
- USAID: Setting up a Fruit and Veg Dev Board (NWFP)
- EBASCO/AEPES/ITECO JV Power Distribution Project WAPDA USAID financed, emphasis on institutional restructuring and upgradation, training & computerization
- GTZ Training Programmes for WAPDA Institute, Faisalabad
- Quick Overall Survey of SGA&ID Govt of the Punjab
- Conducted seminars for senior-most government officials
- System Mapping (HDSFC) Inventory Control (STG) WAPDA
- Computerization Multan Development Authority incl training (World Bank)
- Planning Commission: Evaluation of Technical Assistance 1 (TA 1) of the World Bank (40 sub-projects)
- ILO/ARTEP Technical/Vocational Education and Training System Survey including 3100 questionnaires (ILO/UNDP/GoP-PAK/88/007)
- Energy Loss Reduction programme for Yemen Electricity Corporation, Sana'a including training component (OPEC/UNDP financed)
- WAPDA Setting up of a thermal generation training academy (training population=15000)

- Kasur Tanneries Solid Waste Management Programme (UNIDO financed).
- Shaheen Foundation Restructuring Study
- Norad/EPB/PGMEA to implement through training Cleaner
- Production for Sialkot area tanneries
- Distribution Code/Grid Code/Consumer Service Manual Study for PEPCO-WB Financed Quality Management systems several workshops and certification preparation.

AS A DIRECTOR (1981-89)

Pioneer Housing Society Ltd – Real Estate Development

AS A DIRECTOR (1978-80)

Ashiana Cotton Products Ltd set up 12,500 spindles plant

AS A CHAIRMAN M-1 now MP-1 (1978)

Federal Management Development and Inspection Commission, (CMLAs Secretariat), Rawalpindi (including all training and evaluation functions of the Government of Pakistan)

AS SECRETARY (1973-77) Government of Pakistan, Ministry of Defence Production.

Organized Defence Production for the first time. Responsible for Defence Purchase, Research, for Restructuring POF, and SUPARCO (also Chairman 1976), responsible for structuring Defence Production Board (DPB) and Development & Projects (both indigenous and with others) and manufacturing.

Organizations (controlled by) the Secretary were:

- SUPARCO
- D-G Defence Purchase (DGDP)
- D-G Munitions Production (DGMP)
- MVRDE
- ARDE
- Pakistan Ordnance Factories (POFs)
- Heavy Rebuild Factory (HIT) Taxila
 - Pakistan Aeronautical Complex Kamra
 - Defence Science and Technology Organization (DESTO)
 - Defence Production Board (DPB)

THE SECRETARY HAD POWERS OF A MINISTER FOR 3 MONTHS

AS A SOLE ARBITRATOR (1973-77) Defence Purchase Contracts

AS A FOUNDER DIRECTOR (1967-73) United Consultants Ltd

Executed and Supervised Projects/Studies including:

Pakistan Western Railway Board (Restructuring Study)

Pakistan Western Railway

Evacuee Property Trust Board

Planning and Development Deptt of West Pakistan

Sui Northern Gas Pipelines Ltd

Water & Power Development Authority (WAPDA)

Packages Ltd

Thal Industries Corporation Ltd

Ashiana Cotton Products Ltd

Wazir Ali Industries Ltd

Mitchells Fruit Farms Ltd

Pakistan Security Printing Corp Ltd

Lahore Improvement Trust

Machinery Pool Organization (WAPDA) (to ensure corporatisation)

AS A MEMBER DIRECTING STAFF (1972-73) Pakistan Administrative Staff College Lahore (part time)

AS A FOUNDER DIRECTOR (1965-67) EWP Associates Ltd and EWP Computer Services Ltd. Responsible for installation of first 3rd generation computer in Pakistan and starting Systems Training including organisations such as Pakistan Tobacco and PAF as first time users.

AS A DIRECTOR (1953-65) Wazir Ali Industries Ltd
Designed, partially fabricated and set up a vegetable ghee unit for manufacturing edible oils (Tullo and Cottongold), soaps (Capri), cotton ginning, oil milling and razor blades, trained a large corps of engineers and operators. Responsible for setting up a 0.85 MW diesel generating unit. Responsible for Paper Board feasibility for Packages Ltd. (IFC Funded), Lambretta Scooter Plant, Carrier

Air Conditioning of Ali Autos Ltd etc.

ASSISTANT PRODUCTION MANAGER (1951-53) Lever Brothers (Pak) Ltd. Responsible for starting up soap making (Lifebuoy) and edible oil (Dalda) units in Rahim Yar Khan, including hands-on training of all the shift operator/technicians
MANAGEMENT TRAINEE (1950-51) Unilever Ltd Manufacture of edible oils, silica gel, catalysts, margarine, cattle/poultry feed, soaps, detergents, tooth pastes, cosmetics, ice creams, vegetables processing etc

CHEMICAL ENGINEER OBSERVER (1950) Tennessee Valley Authority (TVA)

- on manufacture of synthetic ammonia, ammonium nitrate, nitric
- acid, phosphorus, triple super phosphate etc

INTERNATIONAL FELLOW (1949-50) Jos E Seagram & Sons Inc. Louisville USA. Worked in the fermentation industry with stress on automation. Obtained Certificate in Industrial Training.

CONSULTANCY ASSIGNMENTS Supervised/Completed by Mr Masood Hasan prior to joining EMMAY:

Management Audit (leading to corporatization) including the following areas:

Organization	MACHINERY POOL
Personnel Management	ORGANIZATION
Operations	(WAPDA) LATER
Maintenance/Production	MCP LTD.
Inventory Management	
Project Planning and Control	
Financial Management	
Conversion of MPO into a limited liability company (corporatization) & working out conversion. details involving finance, equipment, manpower & facilities	MACHINERY POOL
Management Study including the following areas :	ORGANIZATION
Organization	(WAPDA)
Personnel Management	PAKISTAN MINT·
Production Planning and Control	FINANCE DIVISION
	GOVT. OF PAKISTAN

Engineering/Maintenance

Inventory Management
 Bullion Management
 Sales Management
 Financial Management
 Management Information System

Management Study including the following areas :

Organization

Personnel Management
 Pilferage/Shortages
 Enforcement Activities
 Operations
 Financial Management
 Management Information System

**FOOD DEPT'
 GOVT. OF PUNJAB**

Management Study including following areas :

The Scheme

Organization

Personnel

Property Management

Financial Management

Projects

Management Information System

**EVACUEE
 PROPERTY
 TRUST BOARD:
 GOVT. OF PAKISTAN**

Various organizational set ups for consideration

consequent upon break up of one-unit

Management Study including the following areas :

Preplanning

Appraisal & Approval
 Monitoring & Evaluation
 Organization

Personnel & Finance

**PAKISTAN
 RAILWAYS BOARD
 PLANNING &
 DEVELOPMENT
 GOVT OF WEST PAKISTAN**

Working out a Sliding Scale of Compensation for

acquiring of land for Housing Scheme

(Operations Research operation)

Study of the Electricity Sales Systems

from metering to billing/collection etc

**LAHORE
 IMPROVEMENT
 TRUST
 WAPDA POWER
 WING PAKISTAN**

Designing of Production Planning and Control System including a Management

Study of the following areas:

Organization

Personnel Management

Sales Management

Inventory Management

Engineering

Security, Control, Watch & Ward

Financial Management

Medical Centre

Management Information System

**SECURITY
PRINTING CORP LTD**

Management Study including the following areas

Organization

Personnel

Traffic Operation

Inventory Management

Maintenance

Financial Management

Study as to the optimisation of ship unloading/ loading in association with Dr Noor Ali Nanji

Management Study including the following areas :

Organization

Secretarial

Personnel Management

Corporate Targets

Management Information System

Cane Development Procurement

Production Planning and Control

Inventory Management Engineering and Maintenance

**WEST PAKISTAN
ROAD TRANSPORT CORPORATION**

**KARACHI PORT
TRUST
THAL INDUSTRIES
CORPORATION LTD**

Feasibility Study for setting up a Red Brick Manufacturing Plant

WAZIR ALI GROUP

Feasibility Study for setting up a Textile Mill in Multan

PRIVATE PARTY

Feasibility Study for setting up a Cement Manufacturing Unit in West Pakistan

WAZIR ALI GROUP

Feasibility Study for setting up a Milk

WAZIR ALI GROUP

Processing Plant in Mandi Bahauddin	
Feasibility Study for setting up a steel re rolling unit	AMIN BROTHERS LTD
Feasibility Study for setting up an electric furnace melting unit	GENERAL IRON & STEEL WORKS LTD
Advice for setting up new projects etc	WAZIR ALI GROUP
Feasibility Study for setting up a light Engineering Factory	MUJAHID INDUSTRIES LTD
Feasibility Study for setting up of the Lahore Stock Exchange	PROMOTERS OF LAHORE STOCK EXCHANGE
Study on optimisation of use of paper in the printing press	RAILWAY PRESS. PAK WESTERN RAILWAYS
Technical Study No.1 involving pilferage of gas and collection of lost revenues	SUI NORTHERN GAS PIPELINES
Technical Study No.2 involving pilferage of gas and collection of lost revenues	SUI NORTHERN GAS PIPELINES
Feasibility Study and negotiations with financial institutions	ASHIANA TEXTILE MILLS LTD
Feasibility Study including technical advice on local fabrication, negotiations with financial institutions and suppliers of machinery	RACHENA VEGETABLE OIL & GENERAL MILLS LTD
Feasibility Study including negotiations with financial institutions and suppliers of machinery	MANSOOR TEXTILES MILLS LTD
Cargo Forecast of Pakistan Ports up to 1990	PLANNING COMMISSION (QASIM PORT)
Set up the Computer Bureau in mid 1960s	EWP COMPUTER SERVICES LTD.

LIST OF PUBLICATIONS

Download all text at <https://www.emmayassociates.com/list-of-publications.php/1/>

The Systems Approach to Administrative Modernization.	Pak Administrative Staff College Quarterly Vol VI Sep-Dec 1968
How to Control Red Tape -	Pakistan Times Jun-02 1968
Getting to know the Computer: I -	Pakistan Times Jun 1968
Getting to know the Computer: II -	Pakistan Times Jun -23 1968
Large organizations & the Systems Approach -	Pakistan Times Aug-09 1968
The Brain Drain, A symptom -	Pakistan Times Aug-18 1968
Education - New Light on an Old Activity -	Pakistan Times Nov-13 1968
Family Planning for Paper work Control -	Pakistan Times Dec-01 1968
The Need for Reform in Administration -	Pakistan Times Feb-02 1969
Why, the Computer? -	Perspective 1969
Strategy of Administrative Reform -	Pakistan Times May-07 1969
Science, Technology and Man -	Perspective Apr 1969
Change: Administration and Adaptation -	Pakistan Times Mar-16 1969
Towards More Effective Administration	Pakistan Times Apr-08 1969
Administration (Member) Govt of West Pakistan -	July 1969
Appendix XVI, Memorandum on the Systems Concept and the use of Systems & Procedures -	July 1969
Cornelius and Fulton Report: A comparison -	Pakistan Times Sep-22 1969
Reforming Administration -	Pakistan Times Sep-28 1969
A synopsis of the Management Consultancy Groups finding regarding the British Civil Service , (Part of Fulton Report) -	Public Administration Review (NIPA Lahore) Vol VII, Nos 3 & 4 1969
Personnel Administration:	
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Personnel Administration:	
Contemporary Thinking: II-Pakistan Times	Oct 1969
Report of the Study Group on Toning up of Provincial Administration (Member) Govt of West Pakistan	
Appendix XVI, Memorandum on the Systems Concept and the use of Systems & Procedures	July 1969
Memorandum for the Services Reorganization Committee	1969
Administrative Reforms: The Simple vs the Complex - Pakistan Times	Jan-26 1970
Administrative Reforms: How to Change the Human Component Pakistan Times	Jan 27 1970
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An Approach to Planning and Evaluation Electrical Herald	Oct 1971

The Private Sector, the Engineer and his Profession	
Pakistan Engg Congress/ Pakistan Engineer	Oct 1971
On Raising Productivity Pakistan Times	Mar. 23 1972
Administrative Courts and Ombudsman Pakistan Times	May 23 1972
Evaluation of Projects: An Administrative	
Missing Link Pakistan Engg Congress	1973
Management Engineering -- An Emerging Discipline Indus	Sept. 1973
Means of Raising Productivity in Developing	
Countries Seminar, & Modern Approaches to Management/	
Administration-Management Association of Pakistan	1974
Towards Increasing Productivity - Pakistan Engg. Congress	1975
Some Problems of Technology Transfer - Pakistan Engg. Congress	1976
Science, Technology and Administration - Pakistan Admin.	
Review NIPA Lahore	Apr-Jun 1978
Fultons Progress - Pakistan Engineer	Apr 1980
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Govt -Pakistan Engineer	Mar 1980
What is Professionalization of Experience ? Pakistan Engineer	May 1980
Why Does Simple Work Generate Complex	
Problems over the Years? - Pakistan Engineer	June 1980
Some Thoughts on Self-Reliance & Missing Links -	
Institute of Engrs, Pak. Vol.IV (Symposium) Proceedings	Mar 1980
The Basis for Utilizing Modern Management Aids -	
Pakistan Admin. Review NIPA,Lahore	Jul-Dec 1981
The Ombudsman - Muslim	Dec 18, 1981
Coordination as a part of the Administrative Process -	
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Obtaining Results from R&D -Some Requisites: -	
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this knowledge had been translated into Hebrew and Latin.

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EDUCATIONAL ACHIEVEMENTS AND AFFILIATIONS

Early Life; Nairobi, Zanzibar, London, Kashmir, Doon School

Masood Hasan is my full name but if one does it the way people do it in Pakistan, especially in Zia ul Haq's time you have funny names coming up at the end that you have never heard of earlier. I am, Masood Hasan Manto but I haven't used Manto because it goes back to our Hindu / Buddhist background from Kashmir. I am against the caste system anyway. I am a Manto and my uncle was Saadat Hasan Manto who became famous a 100 years after his birth. We are a Kashmiri family. I was born in Lucknow though I have never lived there. And I found out 25 years later after my birth that I was one year older than what was entered in my school records. How I found out is interesting. According to my National Identity Card I am one year younger than what I am telling you. But that's not my fault. I found out 25 years after I was born.

Our ancestors came from the Kashmir valley around 1847 and there had been three or four droughts out there. So they ultimately settled in Amritsar. I don't speak Punjabi either and there is a reason for that. Our ancestral property was in Amritsar it got burnt up on 30th March 1947, the day after Khizar Hayat Tiwana resigned. It was at the Muslim Hindu interface at a place called Katra Jaimal Singh, in Amritsar and the name of the lane out there was Koochan Vakeelan or 'Koochan Mian Asadullah Vakeelan', a grand uncle of mine who must have been a pretty good lawyer out there.



The Mantos of Amritsar, L-R, Sitara, my mother Nadirah Hasan, my father's sister Iqbal Khan, my father Said Hasan, my father's sister Ameer and her husband Khwaja Abdul Hameed

The first language I learnt was Swahili because my father Said Hasan, after qualifying as a barrister from Grays Inn in 1915 returned to India and he tried to practise in Lahore but he couldn't adjust himself (this was before I was born).



My father Said Hasan, Barrister Grays Inn 1915

This would go back to after WWII, he couldn't adjust himself to the practices notably touting. From what I recollect he said that he was acting as Vice Principal of Law College Lahore before I was born and did not teach the originator of Pakistan's Doctrine of Necessity – his name Justice Munir who wrote *From Jinnah*

to *Zia ul Haq* and who admitted his error of the Doctrine of Necessity. He was a student of his. This is by the way.

In the summer holidays that I am told were rather long in those days maybe five months - he went off to Nairobi and sent his resignation from there. Being a barrister and colonial regime had similar laws wherever their colonies were so he had no problem in starting his practice there. In East Africa, in Nairobi and Zanzibar, the first visit there I don't remember too much. I do remember the railway journey going up you could see lions from the train. I learnt Swahili, my memory is not very clear. On the way back to India from England we spent a year in Zanzibar. In England we were there for 4-5 years. My younger brother was born in Zanzibar and he later became a Chief Justice in Nigeria and then Chairman of their Law Reform Committee. So he practised law in Nigeria. After his retirement he settled in London and passed away about a year ago i.e. in 2013.

So the first language we learnt we learnt was Swahili or the coastal language Swahili which has plenty of Arabic in it absorbed from the Arab traders who would move around in those areas. So then they used to be a number of appeals to the Privy Council, not that my father would appear in the Privy Council, but he would have to go to London and remain there for long periods and he then decided to buy a house there. So then we shifted from East Africa to London. We travelled by ship on the *Conterossi* and *Contiverni* from Mombasa to Bombay via Egypt and Italy; then a train across Europe via the Bay of Biscany on rough waters to London. We were there for 4-5 years. There is a photograph of me of the school. I was in the Chiswick and Bedford Park High School 1930. My younger sister Surayya was born in London. Later, she married Zaka Rahmatulla who set up a charitable eyecare hospital with many branches and with mobile units for remote areas named the Layton Rahmatulla Benevolent Trust (LRBT) in Karachi and now its all over Pakistan. They do about 34 percent of all recorded eye operations in all of Pakistan which



Masood Hasan at Chiswick and Bedford Park High School London



University of Illinois

Chicago, Ill.

1911



My parents in London 1930s (L-R) Said and Nadira Hasan with my cousin Waheed and my father's friend Mr Mustufa (Musti)

is quite remarkable. But anyway so the second language I learnt was English.

My father Said Hasan, had purchased a house there at 232 Gunnersbury Avenue, Ealing Common. My mother Nadirah Hasan, along with my brother Khalid Hasan and myself moved to

London and we went to Chiswick and Bedford Park High School. The teachers would collect us via the underground, which was more over ground at that place. Then, from Acton Town to Turnham Green and then walk to the school. In 1949 or 1950, when I returned from the States, I tried to see the whereabouts of the school. I was told it no longer existed since it was bombed. The house where my sister was born I visited it there, it was bought by a Polish couple I found out.

Khalid and myself were the only two foreigners there in 1930. Half a dozen of us were collected by our teacher at Gunnersbury Avenue. Later, my brother went to Oxford and he met some of the children we played with and attended the marriage of one of them.

Then at the age of 10-11, I came back to India having returned to Zanzibar for about a year but while we were in England when the Round Table Conferences were going on and I remember meeting some of the people who were there. In particular Maulana Shaukat Ali who we used to play with. My brother and myself had nick named him Jumbo Baba as he was a huge man



Participants of the Round Table Conference: First row seated include, Sir Shafi and Lady Shafi, Iqbal Shafi, Rani Cooch Bihar next to my mother Nadirah Hasan (in white sari), Rani's three daughters sitting below my mother. My grandfather Maulvi Abdul Ghani wearing a turban, my mother's brother Hamid Gham standing next to him, Sir Mohammad Rafiq, Mrs Kishwar Rehman (wife of Col Rehman next to my mother).. this photo belonged to my mother Begum Nadirah Hasan

Veeraswamy is an Indian restaurant in London, located at 99-101 Regent Street. It was opened in 1926 by Edward Palmer, a retired Indian Army officer and the grandson of an English general and an Indian princess. It is the oldest surviving Indian restaurant in the United Kingdom

and brother of Maulana Muhammad Ali the Khilafat Movement people. There were other interesting people. I remember we met him in Bhopal later where an uncle of mine Khaloojan Hayat was private Secretary to the Nawab of Bhopal. In Zanzibar for a year we went to a Convent. It wasn't very big. There weren't too many children there I do remember the funny name of one of our teachers was Miss Alloogolwalla. Round Potato. Admissions and holidays included in the year.

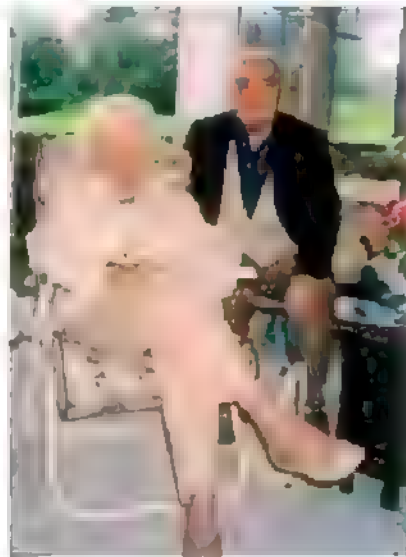
We returned after having spent a year in Zanzibar on the way back to England and we came back and when it was summer we went to Gulmerg in Kashmir. I think in 1929, there had been a big flood somewhat of the type we had here not so long ago and the bridges had got washed away from Manshera. We crossed over on wooden planks, so we then were quite young at that time and of course the only language we knew was English. Swahili didn't matter and our accents were part English. It was very funny.

We were in Gulmerg, then we came back to Lahore where my father attempted to practice again; he represented Maulana Mohammad Ali in a case against the press. However, he did not want to stay so he decided to have a go and get out again and he decided to have a trip around the world. So in 1933, he took off from Bombay and ultimately landed at Southampton and he went on to New York and he would send us postcards all the time wherever he was. From Southampton he went to USA in the ship MS Leviathin. And then across USA by train via Chicago, where some relatives of ours were the Kitchlew family photographer in Chicago must be 1933-34. So and then he left USA in a boat from San Francisco and that liner would stop at major ports on the way; for three days in Honolulu or maybe somewhere else, then he stopped at Suva at Fiji Islands and in those three days he decided to cut short his round the world trip and he decided to practice law in Fiji Islands. So the Muslim community there had convinced him to stay on.

He started practice law in Suva and we were then sent in India to a boarding school that had just opened in 1935. My father Said Hasan, was a Leader and Member of the Legislative Council of Fiji representing the Muslim community there; see Brig V Lal, *A Vision for Change: A D Patel and the Politics of Fiji*, Canberra, Australian National University Press, 2011, where on pages 22 and 31 respectively the author writes, "The Gujarati community was small and could not provide him (Patel) the numbers to get elected to the Legislative Council. For that he needed support of other Indo-Fijians. Muslims had their own leader in Said Hasan..." and "According to Karam Ramrakha, Patel was not as great a legal scholar as Said Hasan"

My mother Nadirah was a close friend of Benda Lady Milverton in Fiji whose husband Lord Milverton served as Governor of Fiji 1936-38. In 2007, I visited her; at the age of 103 she would take the staircase up and down her flat scoffing that the lift was for the old!

We returned to India via Bombay and my father thought he would try and practice law again and we went to Lahore and rented a house behind Queen Mary's College. There a School of Home Economics, called the Shahabuddin flats. There were four flats. We were in one of those for a few months when we went to St Anthony's school for a few months. Then my father decided to go round the world which was



With Benda Lady Milverton at Flete House. She was a friend of my mother's from Fiji Island days when Lord Milverton was the Governor of Fiji.

interrupted practising at Suva Fiji Islands where he terminated his voyage going round. Letters from India to Suva Fiji Islands via sea took six weeks via Ceylon, Australia, Auckland then Suva. Suva is 179 E and latitude 15 South. A post box address.

Lahore was nothing like it is today. We were living behind Queen Mary's College and Home Economics College - we stayed there. We also stayed a while also with my maternal uncle Hamid Ghani, who was an Assistant Manager in North West Railways (NWR) and rose to Director Railway Board.

We lived in Mayo Gardens, close to where we had been prior to this. There were huge tents open fields and we lived in tents for a while. When my father decided to remain in Fiji we shifted to Lucknow for a few months where my mother's elder sister lived. She was the wife of Ghulam Hasan who became at that time the Chief Justice of Oudh Chief Court in Lucknow and then was in the Supreme Court of India. We went to St Francis High School and my maternal grandfather Maulvi Abdul Ghani, who was retired from Uttar Pradesh (UP) as a District and Sessions Judge



My mother's brother Hamid Gham, (first Chief Engineer at Pakistan Railways and General Manager Shipyard at Karachi), my wife Dr Rafia Hasan and self Masood Hasan

before I was born, became our guardian because my mother and sister had taken off to Suva Fiji islands. We were admitted to St Francis and my father in the meanwhile had found out about the Doon School and had made arrangements for us to go there. Part of this was that it was a boarding school so we were put in temporary boarding at St Francis for three months.

Doon School Years

In 1936, Khalid my brother and I were admitted in Doon School. It was modelled on Eton and other public schools in England. Its first Headmaster was Arthur Edward Foot from the talented Socialist Foot family, Michael Foot, Dingle Foot and some Lords and others and so on. It was English medium and the question of Urdu wasn't there. When we went to Dehradun in Jan 1936, the school had started in September 1935 and so was inaugurated. We were in boarding till December 1940. It was summer holidays for three months and winter holidays for one month.

The Doon School patrons were the Indian Public School Society



Myself and Rafia (extreme right) with Prime Minister Rajiv Gandhi at the 1985 Golden Jubilee of the Doon School in Dheradun where I studied

that set it up; two Bengali brothers who set it up. They raised the funds and got the first Headmaster, from the Foot family related to Lord Carrington, Michael Foot and Dingle Foot. They had distinguished themselves in socialist circles. So he brought his socialist philosophy to the school. The school song that we would sing later became the National Anthem of India, Tagore the Nobel Laureate's *Jana Manna Ganna*. What I am talking of is 1936, i.e. more than ten years before India and Pakistan got their independence. Foot was a very far seeing person and laid the foundations on the right lines. When Indira Gandhi became Prime Minister of India, her son was expelled from school and that expulsion was upheld when she was Prime Minister of India. The Headmaster, a Mr Martin had dinner with Indira Gandhi and Sanjay Gandhi never came back.

There was discipline there and most important aspect not to do with academics, was in order to get promoted we all had to acquire a certain labour quota. Now how did you acquire a labour quota? We had adopted a *Chamar* (lowest caste) school in Tunwala about seven miles away from our school teaching them anti mosquito practices to prevent malaria. Something which indicated that you were in a position to help people who found it difficult to help themselves for one reason or another. You trained them and they learnt quickly. Also, there was a big pit inside the school and to make an open air theatre, all the banana trees had to be cut. Let me tell you cutting a banana tree is no joke. You try and do it with an axe and you get showered and it refuses to cut. The point is that labour was put in by us and in other ways for cleaning the school; good training to teach us about a thing as social responsibility and we wouldn't be promoted till we acquired a certain labour quota that they measured. They had the means for doing that. And if you got less you wouldn't be promoted. In fact there a funny thing happened. There was someone there called Ashok Rajiv Gaekward; he came from Baroda. He was told to pick up muck. He told Foot that "don't you know I am First Class Brahmin I can't do it". I

didn't know there were grades in Brahmins! Foot told him I give you one week for you to make up your mind and if you are not willing to do it get ready pack up your bags and go back home. So after one week they arrived at a compromise. The compromise was that Ashok told the Headmaster "I'll do it but don't tell my parents." So the First Class Brahmin was made to do what the scheduled caste had to do!

There were many children of Maharajas and Nawabs there and we never really knew. We all wore the same uniform and were dealt equally. We would have a laugh at Aitchison College, the real name was Aitchison Chiefs College with the emphasis on Chiefs! I don't know what they call it now. The joke that used to go around was if there had been enough elephants there would have been no horses at Aitchison.

At Doon School the idea of being of service to others was as important as doing well at your studies. Students were from all over India, all religions, Parsees, Sikhs, Hindus, and Muslims. From the South of India, Assam even North East. From the North, the Hindus were not familiar from the South. Some of the names we would laugh at because the names gave you not only their names and their fathers and grandfathers name but the name of the village and address you came from. We had a Mathematics teacher called CPS Menon and the boys wanted to find out what CPS stood for. He had been to Cambridge. Nobody knew what it stood for and he would tell nobody. One day a letter came from Cambridge with the full name on it. It was Chelobhala Mathyapura Shiva Rama Menon! So that was a big huge joke going around. Then we found out there were others from South India who wouldn't give their names either. A friend of mine PBS Iyer said usually the name at the end is two syllables with multi syllables in the beginning. He was Pamanathan Swaminathan Bala Subrahmanyam Iyer. I brought this out because it was not only mixing up different people and classes of India, the Maharajas and Nawabs and then you had children of those in government service and industry. Mixing up many and

they came from a background of their languages also. This was part of broadening your attitudes and thinking.

In the summer holidays we would go with our grandfather to Kashmir near Nasim Bagh in Hazrat Bal seven miles from Srinagar town on the way to Harwan which is the place where the water supply of Srinagar came from.

We were there each summer and winters spent time with relatives in Lahore, with my father's relatives in Amritsar and my uncle who was my mother's younger brother Hamid Ghani who became a Works Manager in the North Western Railway, NWR Lahore and then got transferred to Karachi where we spent one summer also. Very pleasant in those days. In fact people from the Punjab would go down to Karachi rather than the hills. The sea breezes were so strong you could bicycle one way but not the other. Powerful winds all the time barring in October when sea breezes changed.

In 1985, on the fiftieth Anniversary of the school, we were invited to the Doon. General Jilani who was the Governor of the Punjab, he was in the same school, a year junior to me, he couldn't go, his health wasn't that good. About thirty families went. Some with children and it was working out well. Since then, what has



Home of my father-in-law Dr Khahfa Abdul Hakim in Naseem Bagh, Srinagar, built in 1946. Certificate of Citizenship of the States of Jammu and Kashmir are held by my daughters as First Class Kashmir citizens.

happened is difficult to tell because things move so quickly today and people start changing their minds even more quickly and it doesn't take long for unwelcome changes to be forced upon us.

One can also judge from the products of the school as to what happened to those who came out of the school. I do know friends did very well. For example Chairman of ICI, Jamshed Rahim, the Vice Chairman of Pakistan Tobacco, Zia Shafi, whose wife made very good cakes, he came first in the exam and joined Pakistan Tobacco. Then Muhammad Hoti in One Unit was the Education Minister and then Afzal Khan, Chairman of Pakistan Petroleum. My younger brother became a Chief Justice, myself I became a Federal Secretary. Then, Aftab Ahmad Khan Dahi was an MNA and Minister from Khanewal. Then, General Jilani was Secretary Ministry of Defence when I was Secretary Ministry of Defence Production. So two old boys of the Doon School were looking after the Ministry of Defence here. Then later he became Governor. Then others in India also there have been top in industry and commerce, medical research, foreign service. Kasuri, in the book *Not a Dove Nor a Hawk* mentions that Mani



At the wedding of my cousin Said Hasan to Nusrat Nizami in Lahore 28 December 1953 from (L-R) Back row: General Haji Ifkhar, Hamid Ghani, myself, Saeed ud Din, Seated (L R) Rashid Wyne, Mian Bashir, Justice S A Rehman, Justice Rashid, Justice Ghulam Hasan of the Indian Supreme Court and Dr Khalifa Abdul Hakim

Shanker Ayer is coming; he was also a Minister. Rajiv Gandhi himself was from there. You would judge the worth of a school by the products that came out of there. And there were many others.

And in the Senior Cambridge that I did in 1940 December, it had lower Urdu and the standard was something like this translating to the "Sinking Ships Slowly Sank"... *kishtee doobtey doobtay doob gayee*". That was my standard. And out there having lived out of India really, the thought of any communalism was completely absent till the age of 15 or 16 when I did my Senior Cambridge.

Experiences with Higher Politics of the 1940s and the Lead Up to Partition

Looking back when in college the Quaid e Azam gave his historic Lahore address which left all Muslims with no doubt that they were moving in the right direction. Sir Syed seeded it, the Allama clothed the concept and the Quaid e Azam took on the hard work of converting the dream into reality. He was fully aware of the double speak of his opponents. Come August 1947 and we were glued to our radios. At midnight the pronouncement that this is Radio Pakistan. This put renewed vigour in one who knew how exploited the Muslims had been and denied of economic opportunities, always rebuffed by those who held authority and advised to forget what progress really meant and concentrate on the Arts.

Within a few days it was evident that the spirit was reflected in the enthusiasm that in many ways was nascent. It started to flower, much to the horror of those who felt otherwise. Can we unlearn the wrong way of doing things seems difficult, but not impossible. We need to recognise what helps to become technologically competent and productive. Recognise merit, recognise attention to detail, recognise the multidisciplinary approach, replacing the polymath of the old. There will not be many who recognise that Arabic was the script for Science for up to a thousand

years in countries between Spain and Afghanistan. Should we not recognise our visionaries? The West shows their respect by honouring them, by allocating resources to experiment, to enlarge their centres of learning and many others.

I was in Lahore in 1940 because I had just come from Dehradun in December 1940 and a lot of water had flowed beyond my comprehension at that time. As a college student I did my little bit in the early 1940s in furthering the setting up of Pakistan and particularly in August 1947. Later, when the Pakistan Resolution was passed, I was nominated on the reception committee to welcome Jinnah. He came here and the Muslim students of Government College we all met off Railway Road at Islamia College. In this meeting the Nawab of Mamdot's son Zulfiqar he nominated a number of persons and I was also nominated for the reception committee to receive Jinnah. I had to do a round on the bicycle and I couldn't afford to lose it. There were hundreds of bicycles but there were no stands and found it impossible with the crowd to find any reliable place for parking my bicycle which I could not afford to lose. So I wasn't able to attend as a member of the reception. Zulfiqar came from Chiefs College. Jinnah's speeches live were heard in Lahore in 1940 and 1942 but I never met him personally. So I missed out that opportunity for meeting Mr Jinnah personally. Most probably it would have just been a handshake no more than that. I heard both speeches a little bit live then of course on the radio.

We did all we could to propagate the separation of India from Pakistan. Jinnah did not want it. He wanted to have control of Parliament through votes to work out to protect the so called Muslim minority by separating the huge majority from it. And the Cripps Mission that offered A, B, and C options: A for NWFP Sind and Baluchistan and C was for Assam and Bengal. Where the Muslims were 52 percent that for ten years act as a Confederation and after ten years have a referendum - if you want to separate and if you want to keep together then keep together. It was accepted

by the Congress and the Muslim League but Nehru went back on it.

In my opinion Nehru was a liar. The good people whom you could deal with in the Congress were Raja Ghoplacharya and Vallabhai Patel and they didn't prevaricate; they told you the position as they understood it. Nehru said one thing and did quite another. He is the man in my opinion accountable for the millions of people who lost their lives. Because that would not have happened. It was accepted by Congress and then Nehru at Bombay Railway Station went back and rescinded on the position of the Congress and then the Muslim League had no option to accept the position and to protect themselves the best they could.

In that meeting with Mountbatten, Jinnah never said yes he never said no, he just nodded his head. After all he was the ambassador for Hindu Muslim unity also. But having seen what had happened with the Government of India Act 1935 and the elections in 1937 and the war coming in 1939 October, and with the two years of the Congress rule; these two years, prior to that there was an arrangement he would rule the Congress and Muslim League would share the ministries. But when the Congress found out that they had a majority without the Muslims they threw the Muslims out. To me that was the real beginning of the separatist movement. To get rid of these things because once you lose trust, doubt is a very bad thing makes you do things you wouldn't do otherwise. Mountbatten was no help himself. He and Lady Mountbatten and Nehru had a very good equation. They didn't like Jinnah.

With the Boundary Commission there were various publications maps and other things; out there the person who had his say was Mountbatten. Lord Radcliffe was suffering from diarrhoea because he had not been in such a climate ever before in his life. So what happened was what Mountbatten wanted and what he wanted was what Nehru had told him and Nehru was happy for this type of Partition because Nehru's vote bank was all of

the United Provinces (UP) and UP today has a population of Muslims more than that of Pakistan and it has not been split up and his vote bank came from there.

So in my opinion to split that vote bank he did what he did. To this day those politicians who can take the UP with them they take a lot more with them there barring one or two years. A lot of provinces have multiplied little bit of Bihar has gone there and Jharkhan etc. UP is solid about 200 million or so population out there. He was worried about his elections and the numbers.

The slogan for *azadi* (freedom) at that time wasn't *Pakistan ka matlab kya la ilaha ilallah*. It was '*ley kar rehen gey Pakistan*' (we shall make sure that Pakistan comes into being). But Jinnah made two mistakes. One was about the Urdu language in East Pakistan and the other was Kashmir. He said he had Kashmir in his pocket. He didn't; he had refused to see Shiekh Abdullah when he waited upon him. Then Shiekh Abdullah went to Nehru and Nehru said take whatever and later Nehru put him in jail. But that is another story the point is that it was not just religion but you can say religion forms a part of it.

I had no idea of what communal and what role religion played in the treatment of who didn't belong to your religion. That I found out the hard way. Even getting admission I found out there were quotas for Hindus and Muslims that was something new to me. Nothing to do with merit. I wasn't old enough to know this. When I came here (Lahore) I was told you will find it difficult to get admission here because you are Muslim. I registered and got admission. Later I got through Intermediate with a second division. If I had known that Urdu was an optional I could have got 17 more marks out of 50 marks. Then I took Chemistry Honours school, three years after Intermediate, cleared English and Maths in the third year and cleared Physics in the fourth year and in our fifth year all our classes were held in the Institute of Chemistry opposite Kims Gun or *Bhangiyon Ka Thop*. It's a department of

Pharmacology now. I made the mistake of doing very well in the House exams so I became a marked man and I heard more about it from the Muslim teachers that so and so thinks this way and so and so thinks that way. They were also forced to think this way and that is why the question of Pakistan came up. The slogan was *Pakistan le kar rehein gey ya ley ke rehen gey Pakistan* (we will get Pakistan) and not other slogans in Murree, Pindi or Karachi.

It was to do with getting rid of being exploited and having the opportunity to do things denied to Muslims in commerce and industry in the private sector. At Partition, the only bank started by one Dr Murfadi, was the Muslim Commercial Bank, later the Australasia Bank came up, but they were non entities. They developed after Pakistan came into existence. All your gineries Muslims had got; they had not even heard of gineries having anything to do with cotton and cotton seed oil and oil cake. Two or three textile manufacturing units like the Lyallpur Cotton Mills and one at Okara and one or two others prior to Partition. It was because of opportunities to get into these things that were controlled by those who ensured that they wouldn't let go.

I know that because in Pre-Partition India, when I wanted to go abroad and to get a passport I was advised why are you going abroad when you can do everything out here. In other words you needn't bother about technology. So I couldn't get a passport easily. Its only when the financial Commissioner happened to be a Muslim, Mr Hussain who became Governor of the Punjab an Indian Civil Service officer. We found out ways and means to get to him and it was only then that I got a passport. And then I was able to move in the right direction. But it does indicate I made the mistake of doing only too well in the final exam at Government College!

So when the final exams came about there were four theoretical papers of 100 marks each and three practical of 100 each; 700 marks in all. I managed to get through with a Third Division but then I found out that in the Physical Chemistry practical, that they

said that I had cooked the books in that I had worked backwards! That was absolutely wrong. But you can't prove otherwise either in a practical or viva that these results were obtained honestly or dishonestly. And nobody can prove it otherwise. So in the practical instead of getting 93 out of 100 I was given 23. So that meant a 10 percent reduction from 60 to 50. And 60 was First Division and 50 was Third Division. And Second came between 50 and 60.

Two or three other Muslims were prepared for this in our MSc exam when we took Technical Chemistry (there was no Chemical Engineering). We made sure we neutralised the negative aspects and all got First Divisions. Not that we cheated but we prevented the "wrong" things from being done. Out there also our classes were held at Mclagan College, now is University of Engineering and Technology in Mughalpura on GT Road Lahore. The Hindus were in control there. They made sure a Hindu got a first class first as some Mr Khokhar and a Mr Kholi Keohr did so. Anyway we were prepared and when you are prepared we were in a position to prevent many negative things and pushed forward creatively the positive aspects.

Anyway, I was fortunate to get through and I found out I had done quite well in the other exams. We only had fictitious roll numbers but since there were only 20 in the class the examiners could tell from the handwriting whose paper it was. This was part of the (convoluted) political thinking of the country. They made sure this happened in the education field and you had the same type of thinking in the other fields.

With Partition, under the feudal system, here almost all the Muslim landlords were indebted to the Hindu moneylenders like Bulakhi Mal, one of the biggest. With Partition everything they owed evaporated. They were the biggest who immediately gained the most. They owed nothing to Bulakhi Mal and his ilk; nothing thereafter!

Since then I have been living in Lahore apart from 1950-53, when I was in Rahim Yar Khan in Punjab. Then in 1954-63 in Hyderabad and since then I am here in Lahore. I developed an interest in Geography and Chemistry at school. I took a non medical combination here because the other combination just did not exist because I wanted to do Economics, Geography and Chemistry but it didn't exist in this combination.

So that was uptil the time, would be December 1940, and again till my Intermediate and being currently unfamiliar with conditions out here, wanted to take Chemistry, Geography and Economics and I was told you're mad no such combination exists. I said, how am I to know, I have been through your calendar and it doesn't say it doesn't exist. So I ultimately I had to take Physics, Chemistry and Mathematics, which I did a non-medical and I wasn't told that Urdu was optional. Optional meant the possibility of scoring 50 marks more so I ended up a very high second class. If I had done Urdu I am sure I would have got 20 out of 50 I got into the First Division. Then I got into the BSc Honours School Punjab University through Government College Lahore. I cleared Maths and English, the second year cleared Physics and in the third year cleared Chemistry from the Institute of Chemistry near the *Bhangiyan ke Top* or the Kim's Gun which I believe is the Pharmacology department nowadays.

So the standard was very high because it took three years of the BSc Honours school as it was called that I completed in summer of 1945 and then went in for an MSc in Technical Chemistry with Mclagen Engineering College affiliated through Government College to Punjab University. So in my BSc Honours School I got a third division. But then I found out why I had got it. I had not realised that the House exams I had done very well and particularly one exam in Inorganic Chemistry and in one exam I had topped it and got 76 percent. I did not even at that stage, realise the communal thinking existed amongst the teachers also. First of all they discouraged Muslims from taking Science. They

said why don't you take Arabic and Persian. I said no I want to do Chemistry and anyway then I did it and then found out there were four theoretical papers and three practicals. In one practical in Physical practical in Physical Chemistry and they could give you any number of marks and you couldn't object to it. They said you cooked your results and you couldn't say how they cooked them or uncooked them as the case maybe it's a matter of subjective judgment so I got 23 out of a 100 in that exam instead of 93 so 10 percent made a big difference because in those days a first division was 60 percent. I got 50 percent but anyway I thanked the Lord I had got through. But I started to learn what Mahatama Gandhi told Jinnah that I have three votes to your one vote so now come on!

So all these things developed out of in my estimation, with Gandhi bringing communalism into politics which Jinnah did not. In fact he was an ambassador of Hindu Muslim unity and gradually he was pushed against the wall. And even the Pakistan we have today he accepted grudgingly he never said yes he just nodded his head when Mountbatten and others were around there in the room. Anyway for the MSc I was prepared. Out there I got a First Division. It means one had to do a lot of canvassing to neutralise this communal bias that amounted to giving you fewer marks in the final exams.

Anyway, I got a First Division then in the MSc and then I went down to Bhopal where my Khaloo (uncle) Hasan Muhammad Hayat who was the Private Secretary to Hamidullah the Nawab of Bhopal and stayed there for a few months. The monsoon season is very pleasant and its very cool; its cloudy for three months out there. So went around with Maulana Shaukat Ali and by that time Maulana Muhammad Ali had passed away and was buried somewhere in Jerusalem.

Having done my MSc in Technical Chemistry, we knew Dr K. A. Hamied who started CIPLA the Chemical Industrial and



My father in law Dr Khalifa Abdul Hakim, my mother's sister's son Shaukat Hayat, my father Said Hasan, Sitting L-R my mother's sister Khadija Hakim, Amina (wife of Shaukat Hayat) and my mother Nadirah Hasan

Pharmaceutical Laboratories in Bombay India. It is one of the largest pharmaceutical company in India today. I am told they have a turnover a few years ago of Rs 5000-6000 crore a year, (over US \$ 2 billion by market capitalisation). Its a huge thing. My niece Shireen Hamied (Bulu) is married to K A Hamied's son Mustafa K Hamied (Muku).



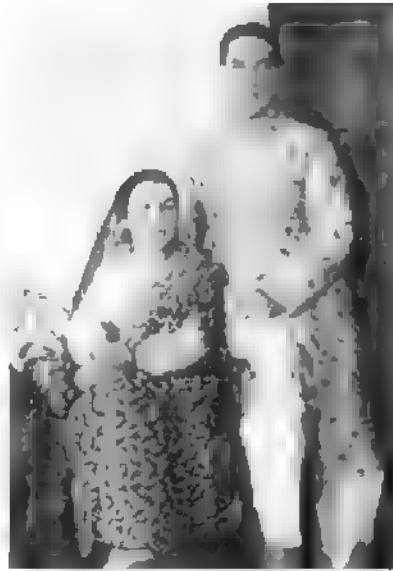
My mother's brother-in-law Hayat Muhammad Khan who was the Personal Assistant of Hamidullah the Nawab of Bhopal

So I went down for three months in Bombay to Baikala on Frair Road quite near Khilafat House there and stayed with my *Chacha* (paternal uncle) who was my father's younger brother Saadat Hasan Manto, the well known short story writer.

Anyway I used to walk to this processing factory - CIPLA to familiarise myself with manufacturing and after three months I came back to Lahore as my sister was at Queen Marys College and my mother had returned from Fiji where she had gone in

1935. She returned in 1942. My brother and I hadn't seen her in seven years. She didn't recognise us when she got back!

All in all my mother travelled between Africa, India and Fiji Islands for the best part of her early married life; her sea voyages 1920s to 1940s were Mombasa to Bombay on a smaller boat, SS Viceroy of India (P&O) 1935 Bombay to Colombo to Perth to Melbourne to Sydney to Auckland- Suva, Fiji Islands; SS Strathnovar (P&O) Bombay to Sydney to



Dr Khwaja Abdul Hamied and his wife Luba who started CIPLA a multinational pharmaceutical company in Bombay in 1935, presently with a multi billion dollar turnover

Fiji Islands; SS Strathnaird Bombay to change at Sydney for Fiji Islands; SS Maryposa (Lerline USA line) San Francisco to Fiji via Hawaii; SS Manyua (P&O) Mombasa to Italy; SS Victoria Lloyd Trestino. In 1941 she flew on the first KNILM (KLM) flight from Sydney to Port Darwin to Jog Jakarta to Rangoon and landed at Dum Dum Airport Calcutta.

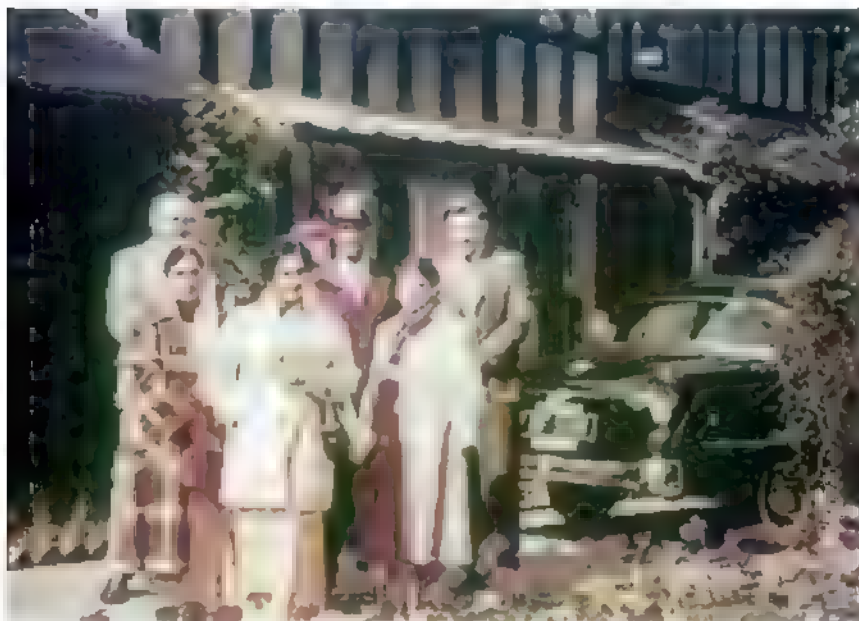
My brother was then at Government College Lahore. I was trying to get admission somewhere in the States for Chemical Engineering and then I took off. My uncle, Hamid Ghani was a mechanical engineer with NWR the North Western Railways and during the war he had manufactured a complete engine here for the railways he was quite a remarkable engineer. Later on when he was the General Manager of Karachi Shipyard in its Engineering works; he had the first tonne ocean going, a 10,000 tonne vessel manufactured there. It was owned by the Valikas and it was torpedoed some time later!



My brother Khalid Hasan at Oxford University 1948



My mother Nadirah Hasan with my sister Surayya Rahmatulla during their visit to Sydney



L. R (Back Row)- Lord Milverton, Benda Lady Milverton, Said Hasan, Lord Milverton's son, L. R (Front Row). Nadirah Hasan, Surayya Rahmatulla and Rafia Hasan, England



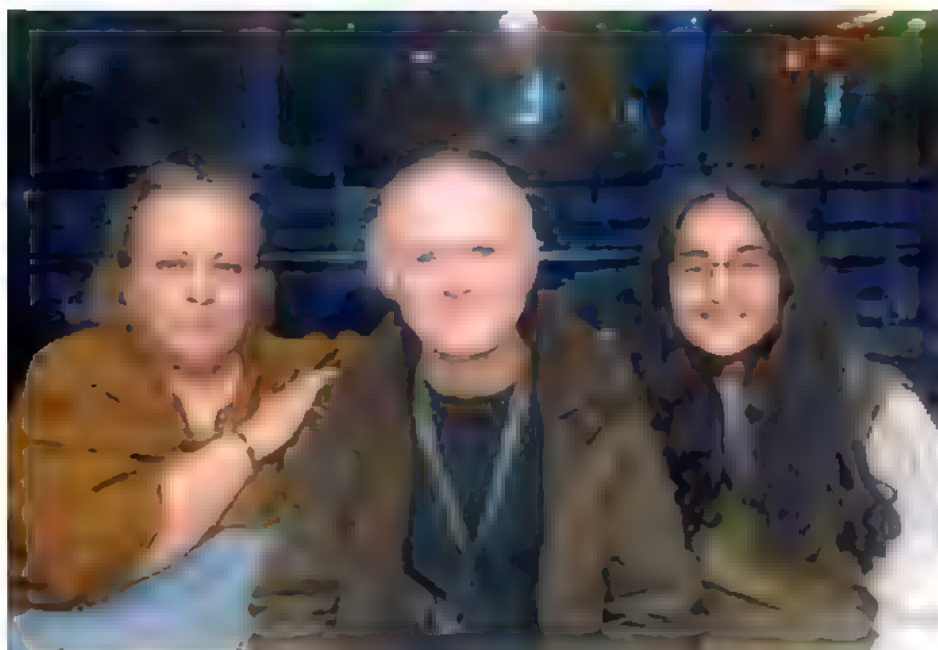
My father's brother Saadat Hasan Manto with his wife Safia



Faiz Philip shaking hands with my mother's sister's daughter Mrs. Nishat Rehman (Nisho) whose daughter Bulu married Dr Khawaja Abdul Hamed's son Muku



L—R: Nadirah Hasan, Dr Ishrat Lindblad, Dr Rafia Hasan, Masood Hasan, Dr Bo Badr Lindblad, Mrs Khadijah Hakim



L R Dr Naveed Hasan, Dr Fazl Philip Henderson, and Maliha on a night cruise on the Bosphorus, 2019



Seagrams 1949 visit by Eleanor D. Roosevelt (seated) with Fred Wilkie (President of Seagrams) to her left and myself seated on the extreme right



*Second Annual Dinner 5th October 1949, Mr Wilkie's reply after accepting the Scroll
R L. Dr. Paul Kolochov, Jean Marie Antoine Kayeux (Belgium), Dr Scherago, Masood Hasan (President SIC),
Fred Wilkie, Verma (India), delegate from South Africa*

۲۰۰۰

- مهمترین دستاوردهای سازمان در سال ۱۳۷۹
- تولید و عرضه خدمات آموزشی و پژوهشی
- تولید و عرضه خدمات فرهنگی و اجتماعی

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WORK EXPERIENCES AND CEO OF ORGANISATIONS

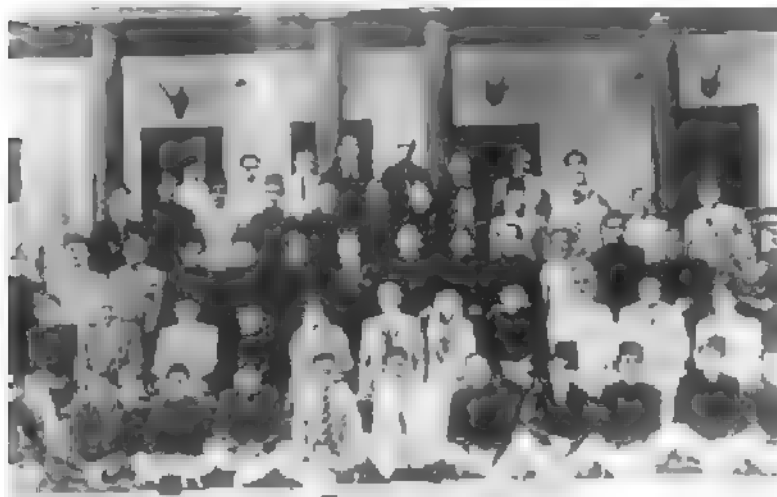
Working Life: Seagrams USA

I was trying to get admission to some place in the States so I got a positive response from the Case Institute of Technology that had changed its name from the Case School of Applied Science to later after I left, it amalgamated with Western Reserve Medical College which was next door. Now it is called Case Western Reserve University which is in Cleveland Ohio. In the first week of September I was able to board the plane to America in which we had the first Foreign Minister Sir Muhammad Zafarullah Khan. Mr Jinnah wasn't bothered whether he was Qadiani or not or whether Juginder Nath Mandal our law Minister was Muslim or not and so on. If religion had been the basis he wouldn't have got what we call minorities nowadays in such senior positions. There were many others also when you look at the history of Muslim rulers many from Spain to Afghanistan going a 1000 years many had Jewish and Christian Ministers and Prime Ministers and High officials in their government as did the Ottomans later. They had many Eastern Orthodox Christians and others. I don't think it has worked ever the other way around.

This delegation had Abdus Sattar Peerzada, the father of Hafiz Peerzada who passed away a few days ago in 2015. He was well known. On the way we spent the night in a hotel in Istanbul where Attaturk used to have his daily whiskey or *Raki* or whatever it is called and we then went on to Athens, Rome and Heathrow; we stayed the night in London, then Shannon in Ireland then Gander Ireland then I made my way to Cleveland Ohio. This is in 1947 then I was in the States from 10th September onwards.

So I made my first trip in the Pan American Constellation plane which had the flying ceiling of a Fokker friendship, 13,000 feet and could only fly during the day. So at that time our first delegation to the United Nations was led by Muhammad Zafarullah Khan who was on that plane. Peerzada was there, Begum A G Khan. President Ayub at that time was Audit and Accounts and two or three others. So my father and my father's elder brother my *Taiya* Muhammad Hasan who had worked with Maulana Zafarullah Khan when they were editing the All India law reports out here. Because he was a barrister also.

So anyway we passed through most probably Basra or Baghdad and landed up in Istanbul in the hotel where Atatürk was having his alcoholic drinks every evening. They showed us the room they showed us the chair and other things where he would imbibe. We spent the night there and the next night via Athens and Heathrow we landed in England and spent the night there and the following day took off from Shannon, the airport in Ireland for Gander Newton plan that was the shortest hop across the Atlantic. And from Gander we came down to New York in the afternoon.



Seated with Quaid-e-Azam Mohammad Ali Jinnah and Miss Fatma Jinnah at Amar Singh Club in Srinagar, Kashmir, with students and dignitaries flanked by Dr Khalifa Abdul Hakim and Mrs Khadijah Hakim. Sheikh Abdullah seated third from right



The Manto family of Amritsar descendants of Khawaja Rehmatullah (15th July 1937) at the residence of Mian Habibullah. Backrow L-R: Aziz Ahmad, Mohammad Amin, Abdul Majeed, Asghar Hamid, Karamatullah, Mohammad Hanif, Ghulam Hasan, Rehmatullah, Mohammad Yaseen, Masood Hafeez. Seated L-R: Mahmood Ahmad, Saleem Hasan (my father's brother), Saeedullah, Azizullah, Hafizullah, Ibadullah, Abdul Hameed, Mohammad Hasan (my father's brother), Sharif Ahmad. Front row L-R: Khursheed Ahmad, Shaukat Husain, Mohammad Naseem, Ilyas Kitchlew, Hamid Hasan, Anwar Hasan, Azra Kitchlew, Mustageem, Shamim, Zafarullah Poshni, Zaheeruddin

We landed in New York and I made my way to Cleveland Ohio. Then made my way to what would be the equivalent of the Registrar's office out here with my suitcase and said "here I am". He said yes first thing we have to do is to find a place for you to spend the night. So anyway that was worked out then I went through their syllabus there I said I would like to take these subjects. So when I went through the quality of the standard of the curriculum and for the Masters of Science in Organic and Inorganic Chemistry, I said I have done much more than this in my undergraduate at Punjab University and fortunately I had taken my fair notes out with me in Inorganic and Organic Chemistry. Fortunately, we had a very talented teacher Dr Bashir Ahmed, who was the elder brother of Dr Bilkees Fatima who was later Principal of Fatima Jinnah Medical College. I said you can go through them out here and if you want I will repeat them but it will be repetition. But I said I have observed they have courses in Engineering Plant Design and Chemical Engineering, Economics that we don't have in Pakistan so I would like to take those. He said

you can take those but we will let you know of the rest later. So in the first semester that is what I did and at the end of the semester much to my surprise they said we give you exemption from Organic and Inorganic Chemistry, in other words they accepted the superiority of the curriculum of Punjab University when I appeared in the examination in 1945 and more importantly they gave me credit for the two undergraduate courses that I had to do out there. Which was remarkable. Today if anyone sees a green passport they would throw it out of the window.

I was for fifteen months at the Case Institute of Technology. The Pakistani model educational system was based on the British, which was more qualitative. At Case it was more quantitative. They could reduce things in measurable form. You could not reduce things in measurable form because then you become practical. In other words there was more emphasis on science and less on technology. That is my estimate.

So in a year and a quarter I got my Chemical Engineering degree then I decided to take three other courses. There was a programme going on in Louisville, Kentucky which had been started by Wendell Wilkie; he is the *One World* fellow whose younger brother who was President of Seagrams Fred Wilkie. Got a Diploma in Industrial training from them. These Diplomas even by private organisations have value in America because they are of very high standard.

In the States, Seagrams were distillers in Louisville Kentucky it was a Canadian company owned by the Bronfman and they made a terrific amount of money during the Prohibition and the smuggling of alcoholic drinks at that time. They had a programme initiated by Fred Wilkie who was their President who was the younger brother of Wendell Wilkie who wrote that book, *One World* and failed in his attempt to become President. They had this altruistic programme in which they had representatives from South America, Europe, Far East, Canada, England, and



Myself delivering a talk at Seagrams International Club in Louisville Kentucky



With my fellow students at Case Western Reserve, Cleveland, Ohio, I am sitting in front with glasses



Self while working at Seagrams

South Africa about 40. They put you through a one year training programme. Some of them they paid and some of them did not. In my time half of them were there on their own expense. For the first three months I was there at my own expense. And then after that they offered me a fellowship for one year and that is why I was there for 15 months and the fellowship was a good one. They called it an International Fellowship. If I remember correctly it was \$52 a week free of all taxes which added on to what I was getting from my father who was a barrister practising in Suva Fiji Islands. So that was very welcome. In the course of the one year we went through all their sections supervised by their experts on a daily basis. Their training was very thorough in the fermentation industry even though their end products were alcoholic drinks of one type or another but the chemistry of the fermentation process was a more important aspect as far as I was concerned.

I got that fellowship because I had given a number of talks for which they must have got feedback like American organisations the Rotary Club, the Lions Club and Womens' clubs I gave thirty or forty talks out there. They offered me this fellowship so I remained out there so I wrote a booklet for them for Pneumatic Controls for their equipment because in those days you didn't have Solid State Physics and because they had an explosive atmosphere out there with alcohol. There were so many controls with compressed air where you did not get any sparks.

In my talks on Pakistan they wanted to know about Pakistan and the fact Pakistan came about they were impressed. Just as much when Congress was addressed by Field Marshal Ayub Khan went there they were impressed he threw away his speech he did it extempore. He did better that way. The Indians were very unhappy about the formation of Pakistan. There were a few Indians and Pakistanis there when I went there. The Americans never had a clue and said we have heard of India, but we have



Seagrams International Training Group March 1949, Louisville, KY

never heard of Pakistan. The Indians who I met out there at that time they had not accepted in their minds Partition and they would not accept favourably. But when we explained to the Americans they were very interested and curious to find out unlike the English.

They were impressed by how America opened up; they had pioneers they appreciated a pioneering spirit going in for something new. Like in their banking system which was different to our banking system their criteria was different to extend finance. The banks out here would say it is too risky. Venture Capital. Their commercial banks there are prepared to do that. The Investment Banks here will extend finance.

Comparing USA with Britain, if penicillin was discovered in England its manufacture took place in America not in England. That is because when America fell behind then Japan took over. Japan accepted what Deming (Quality Assurance) told them. America did not. This is inspite of the McNamara management revolution earlier when he got his whiz kids from Ford motor company and did what he had to do.

When I completed my fellowship, I heard of Tennessee Valley Authority and their Chemical Engineering Division in Wilson Dam Alabama. Wilson Dam is part of three cities. Helen Keller came from one of the three. The blind one, who communicated through an individual which was remarkable in its own day. Deaf, dumb and blind I believe. So I had an opportunity of six or seven weeks out there going through their chemical engineering facilities, mining ammonia phosphate fertiliser and many other things. From there the Director of Research at Seagrams had given me a letter of reference. A Russian called Dr Paul Kolochoy had given me a reference to someone at Lever Brothers USA. This is because I was returning and I had done a thesis on the hydrogenisation of cotton seed oil which we have plenty of that time in Pakistan. I didn't have to see the gentleman at that time in New York; he told me that they had communicated with someone at Unilever House at Blackfriars London. He said when you go there you can meet them. Then I went there.

It was cheaper to live at Oxford University where my younger brother was studying at Wadham College so I lived in Oxford and it was 10 shillings and six pence for the night and in London it was one guinea which was equal to a pound and a shilling and the rail fares were very cheap. So I stayed in Oxford. At that time Hafiz Kardar was senior to my younger brother Khalid Hasan who was studying Law at Wadham College and Zulfiqar Ali Bhutto was junior to him and I had an opportunity of meeting them for the first time. We had very long conversations walking around and other Pakistanis and Indians were around there too. Khalid Hasan later

was made Chief Justice of Northern Nigeria and later Chairman of the Law Reform Commission.

I would commute almost on a daily basis and finally Unilever offered me a job in Pakistan with the requirement of initial management training in England. I accepted that and the first port of call for me was a factory in Warrington in Lancashire called Joseph Crossfields and Sons established in 1857. They made soap, glycerine shampoos and silica. They were situated at that time along the Mersey river which was in filthy condition though I believe twenty years ago they had cleaned it up and the fish had returned. I spent about three to four months living in Thelwall a suburb of Warrington and learnt all about the intricacies of soap boiling and how to produce laundry soap and toilet soap. This was hands on experience which I did not have earlier. From there I was sent onto the Olympia Oil and Cake Mills later called BOCM British Oil and Cake mills at Selby Yorkshire where I spent another three months where I went through the oil milling process producing oil from imported seeds. Many had strange names like Ylang Ylang oil I never heard of it before and there was several others also. They also refined oil and produced deodorised cooking media. After that I spent a short while in Leeds with a toilet soap manufacturing company. They made toothpaste and cosmetics therefore, I was sent to Bristol. Lever Brothers had acquired a new process of manufacturing soap from their French equivalents called Mon Savon so I spent a lot of time on the Mon Savon tower. Manufacturing soap that was done automatically and spent time with what was BOCM at Avonmouth, a port out there and I spent two months out there and then I was sent to Perfleet East of London to a factory called Vandenburgs and Jergens of Dutch origin who manufactured margarine ice creams and several other products. I spent two to three months there going through the drill of manufacturing Vitamin A from the coloured portion of palm oil that Lever Brothers got from their plantations in Nigeria.

I returned to Pakistan in 1949 summer. My mother had come down from Lahore and we spent two or three nights with Mr Fazl ur Rehman who was the head of the Sindh Madrassa in Karachi. Then I joined Lever Brothers in Karachi for three months out there getting equipment released from customs sent out there. Then things looked very much the same as they were in 1947 when I left. I went back to Karachi where I took over as Assistant Production Manager in Lever Brothers Pakistan office in Machi Miani in Karachi and spent the next three months assessing duty of the imported equipment coming in for the Lever Brothers factory at Rahim Yar Khan (RYK). Then I was shunted off to RYK sometime towards the end of 1950. The population out there was 25,000. Must be several times more there now. My colleague Imtiaz Mehdi who had gone through the same training process (unknown to me) and I were put up in a house there with walls one and a half to two feet thick, no running water – there was a hand pump and no electricity. The houses of Lever Brothers were under construction then. So we spent three months there and then shifted over to a shared house. Both of us were bachelors.

When I was in Rahim Yar Khan the engineers were putting up a factory. In fact I named and produced with my own hand the first tin of *Dalda* and the first cake of Lifebuoy soap. Nobody else could do it. The first three months out there a colleague Imtiaz Mehdi and myself lived in walls that were two feet thick. The water supply there was a pump out there with no electricity and the population of RYK in 1951-53 was 25,000. The only recreation we had there at Abbassi Textile Mill's tennis court was to wander around the Rahim Yar Khan's train platform when the Frontier mail went by to see it as usually there was some acquaintance on it. I started up their two units for Vegetable *Ghee* and Soap. But then I couldn't get on with their European vs non European treatment so I left them in Sept 1953.

Prior to coming over to RYK, I lived in Karachi with two of my friends from my school the Doon School. One of them was J

R Rahim who later became Chairman of ICI Pakistan and Afzal Muhammad Khan who later became Chairman of Pakistan Petroleum and several other companies and we shared a flat there for three months; an ICI flat at Clifton it is fully built up and it was open land right from Clifton bridge to Kalat house on the hill you can see it very clearly.



While working at Lever Brothers Pakistan

Imtiaz Mehdi and myself ensconsed ourselves in our newly constructed house in RYK with running water and air-conditioning. The conveniences we had were available, now the next problem was to put all the equipment together to make it work.

The Mechanical Engineering side of the business was at that time called the Sadiq Soap Company and the Sadiq Vegetable Oils and Allied Industries. The name Sadiq came from the Bahawalpur ruling family since they had invested money in equity in these two units. We, ultimately the engineers, put it together and we had to start it up. Of course there were no trained operators there. The various activities were apart from soap making and vegetable oil refining, where they also had a small oil mill in which cotton seed was delinted and some oil was produced. But most of the oil required for manufacturing of *Dalda* (hydrogenised vegetable oil) was purchased from the surrounding Southern Punjab Multan area. We had never started up any factory in our lives so it was a very good experience and the so called “European experts” were not in a position to get the factory going quickly. My colleague Imtiaz Mehdi and myself we were, in view of the delays, shouldered with the responsibility which took three

months working twelve hours each a day alternating in the factory. We alternated our shifts for three months: 8am to 8pm and 8pm to 8am alternating every week and during this period we got the refinery going and the soap making going. And since my colleague wasn't a Chemical Engineer, I was in a position to name and produce in Pakistan the first tin of *Dalda* and make the first cake of Lifebuoy soap in 1951-52.

Later, because of the differences that arose between me and management which I felt was the discriminatory treatment between Europeans and Pakistanis, so in 1953 I resigned from Lever Brothers and joined up the Wazir Ali Group where they were allotted Sind Oil Mills, the largest oil mill of its kind – a declared Evacuee Property which belonged to Mohan Lal Saskeria. So Saskeria Oil Mills became Sind Oil Mills. Half the equipment for vegetable *ghee* was unloaded at Bombay and the Wazir Ali group were in a position to re-route another boat that brought the other half of the equipment to Karachi.

Discrimination can be done in many ways and many times it is very difficult to express but body language means a lot in such situations. At Uniliver discrimination for example in the allotment of the houses as they were going up. Then, as we were the two junior most managers they should have mentored us. Many things were taken for granted which I refused to take for granted and that is basically that is why I resigned. Before resignation one looks for opportunities elsewhere and when opportunities get themselves manifest and at that time you decide to move or not to move. They arose and in view of our familiarity with the Wazir Ali family. At that time Sir Maratib Ali was heading it and his son Amjad Ali at that time was a minister. However both Imtiaz Mehdi and myself shifted over in Sept 1953. At the time, we were the junior most managers and my colleague Imtiaz Mehdi also spent some time in the oil mill.



Friends from my bachelor days, Imtiaz Mehdi and Ikram ullah Khan Niazi visiting our home in Lahore

Working Life : Wazir Ali Industries

I joined the Wazir Ali group in Hyderabad Sind and they had imported a vegetable ghee factory around 1947 to set a unit up in Bhopal. And the diverted half of the other equipment went to Bombay, and the rest of the shipment went to Karachi. Then we landed up in Hyderabad Sind. The problem I had was to convert that into a running factory. Where manufacturing facility in Pakistan was non-existent towards the end of 1953, it took me three months working out designing things as an engineer without any mentoring and without any help. Let me tell you it is not easy. It is very easy getting but when it comes to getting things to work you are holding your heart in your hand will it work will it not.

At the factory I had to train all the people to get things manufactured. The Bhopal equipment was lost. I had to substitute that somehow through imports or through knocking things together that the *mistri* (mason) does which is mysterious anyway. The pipes, if



Family photo when I was at Wazir Ali Industries Hyderabad Sindh, L-R (our eldest daughter Tahseen, and Naveed with Rafia and myself)

you have to bend a pipe you have benders and we didn't have benders then so we filled them up with sand, heated them up and bent them with a hammer and many hammers broke but we got the work done that was the main thing. Then for storage tanks for oil sheets we had to bend sheets – no bending machines, so again heating and banging them. So I am quite sure if those tanks are still there, they are not exactly circular and you can see the hammer lines in there. I got the factory going there was oil milling

also and I also ran an 18,000 bales of cotton ginnery for a season in Sanghar.

In the meanwhile as I had got married and the educational facilities for the children were not so good; I thought of getting away from Hyderabad Sind so we had the choice of Karachi or Lahore. In the meanwhile my wife had started up the Psychology Department in Sind University when Dr Raziuddin Siddiqui was the Vice Chancellor there. A talented man in his own way. So we decided to come to Lahore where the Wazir Alis didn't want me to leave so I continued to work for them there.

Their office was Ali Automobiles on Mall Road Lahore that later got nationalised. I looked after the marketing of all *Tullo* (hydrogenised vegetable oil), a name given by me, and soap named Capri later up in the North.

With Afghanistan we entered into an agreement out there in 1963-64 when the Russians had just completed the Salang Pass in which you could move from Kabul to the North through the tunnel they had made so we entered into a trade agreement barter with the Royal Afghan. I went there through the Salang Tunnel two weeks after its inauguration by the Russians. I was familiar with mountainous regions when I used to go to Kashmir where my grandfather had built a house in Nasim Bagh near Hazrat Bal, seven miles away from Srinagar town itself over the Banehal Pass. Now I believe they have a tunnel much lower down. That is at 9000 feet.

As a Founder Director EWP Associates Ltd and EWP Computer Services

I left the Wazir Ali group when I worked in electronics. There wasn't much more I could accomplish out there as they had to do the routine daily work. So I went in with three others we imported the first third generation computer in the country with

an IDBP loan of 25 lakhs. There were two partners from East Pakistan: Raza ur Rehman and Saif ur Rehman. Saif ur Rehman later became their Finance minister ten years ago or more. We got into computers; I was resident in Lahore and we imported an ICT 1902 in 1964. At that time PIA had an IBM 1401 which was a second generation. Ours was a third generation one. They said unless you train us its no use so I went through the programming training them. Using a six bit byte. IBM had an eight bit byte. Now of course you don't talk about these numbers. Its just gone haywire with micro miniaturisation. I am talking about 1964-65.

In the meanwhile, my wife Dr Rafia Hasan had taken our two daughters Tahseen and Naveed with her to London; Rafia who went on a Fulbright Scholarship had an Ed.M. from Harvard University, was now doing her PhD from UCL London University in bilingualism in school children and its impact on learning. She stayed there at my father's flat at 53-Courtfield Gardens near Gloucester Road London underground from 1962-64 and returned to teach at the Applied Psychology Department at the Punjab University Lahore.

By this time in 1964 my family had also shifted to Lahore so my colleagues and myself got together and we decided to import the first third generation computer in the country. We installed the computer in Bangalore Town at Drigh Road Karachi. After several obstacles had to be overcome one way or the other because foreign exchange was involved and to obtain foreign exchange it took some doing in those days. There were four of us involved in this; two from East Pakistan and two from West Pakistan. The two from East Pakistan were Chartered Accountants who ran an auditing business; Mr Raza ur Rehman and Mr Saif ur Rehman. Mr Saif ur Rehman was from Chittagong and Raza ur Rehman from Dacca. The third gentleman was Mr Sikander Latif a Chartered Accountant from West Pakistan who was also working within the Wazir Ali group and the fourth was myself.

I am not a Chartered Accountant; I had qualified in Chemical Engineering a long time ago. So we imported this computer and it was installed in Bangalore Town in Karachi; the office had false flooring and all the cabling was under it and it had to be air conditioned not only for temperature but for humidity control and also for controlling the number of cycles of the electrical current had in addition to several other safety features. It occupied quite a large area now all these things are concentrated in a hand held computer which is more powerful today than what we had in those days. The cabling from my point of view was quite complex but however we got going with the assistance of the ICT the manufacturing people who come over to Pakistan.

Once we got over the teething problems we were looking for revenue to get clients and we had already discussed the matter with the Pakistan Airforce and Pakistan Tobacco earlier. In fact we had a team over from there who had spent time in Operations Research (OR): there was one Dr Rajput from University of Aston in Birmingham who had come over and who lectured on aspects of OR and as known in America or as Operations Research and as it is known in England as Operational Research. This was a very interesting exercise because it was basically a multidisciplinary approach that was unknown in Pakistan at that time and it did open certain windows in senior management's mind that there are certain technologies which developed out of WWII. The multidisciplinary approach came from the development of radar in the 1930s and several other things. So we trained and had a trainer who had came out of England with the improbable name of Mr Ian LeMay Girling; he was an expert in Systems Analysis and had told us he had spent time with some people who had worked on the Polaris missile project in America which was looked after over by Admiral Rickover – he who as Director of the US Naval Reactors Office, for three decades directed and controlled the original development of naval nuclear propulsion operations. I believe it was about the only sizeable project; it remained within its budget to produce results in not

more than the time allotted to it. They had thousands of vendors and the whole control mechanism for coordinating the method was sizeable but it was possible to do so because of the concepts developed out of WWII particularly out of the civil side. Because the military had done as much as it could and it was only after expressing their inability to do much more that perforce civilians were involved and progress took place and it is happening to this day. Mr Ian LeMay Girling was taken around both East and West Pakistan where he lectured on Systems and Procedures and as I have pointed out earlier that apart from the vision and mission, the goals, objectives and strategy which are intellectual efforts the real problem arises when the intellectual effort has to be converted into physical reality at the ground level. Where all the problems arise and success or failure is defined at that level.

What Mr Girling did was to point out the degree of detail requested to establish the status quo as to how matters were running or not been running as the case maybe in various organisations involved in the senior most and junior most management in the same room at the same time in an analysis that could take six to seven hours in one go!

We put Pakistan Air Force and Pakistan Tobacco into Electronic Data Processing. At Pakistan Tobacco we spent time with them for one year and then they took off. With the government organisation Pakistan Air Force (PAF) you had to keep holding their hand for much longer before they took off because of the lack of flexibility in making changes. That's another very long story that the Armed Forces are managers of war and I am a manager of peace. Managers of war during peace can only follow the book of rules and if they don't, they get court marshalled, therefore so I don't expect any reformers to come out from there. Unless there is a Napoleon or a de Gualle and you don't find them every day.

My definition of technology is the know how to solve problems all sorts in man made systems and man made organisations. If

they are man made, then technology will tell you how to put them right. Technology calls for discipline, attention to detail. The methodology of technology is different from that of science, even though both use the empirical, scientific or inductive method. For example, in the methodology of technology there is little demonstrated demand for incorporating planned technological change as a process. Technology is the know how to solve problems all sorts: commercial, industrial, administrative, technical or non-technical in man made systems. To change an unsatisfactory way of doing things, it is necessary to understand how the unsatisfactory way functions in detail and to understand the obstacles to change and the potential leverage points to condition change. This is through systems analysis or "binary". Intimate knowledge of the physical transactions brings improvement at a level where success or failure happens at the operative level. This is where the potential leverage points for attack are located. This is concerned with applications not necessarily understanding science.

Self reliance is achieved through institutionalised change; at first turbulence, then stabilise then a critical mass built for a new movement. The requirements at each stage are not the same otherwise change can be brought through a charismatic powerful leader. Either way you need to institutionalise change and bring judicial and audit accountability and Research and Development for acquisition be made easier. The Chief Accounting Officers (CAO) of ministers if they tried to find out what is in the current practice, they may be surprised to find out what clever managers have engineered in the past. It is the CAO's responsibility to answer the Standard Operating Procedures and keep them up to date which would hardly take up half to one percent of their budget. Of course there is a methodology to doing this properly. All empires have collapsed because of untruths. To evaluate a ministry to obtain results, the CAO does audit trials and updates SOPs on the information received. He/she plugs in missing information and verifies appointments and expenditures of contractors including consultant's data set.

For self reliance the first requirement is self respect and the second is discipline. Given the Pakistani conditions lumping pure and applied research to technology without first clarifying their roles will produce confusion. Technology is concerned with the wants of people hence has to work in two worlds; the world of physical laws to create added value which is marketable at a profit, and then with a scientist who deals only with the laws of nature within the confines of a room. The technologist can face bankruptcy or acquire a lot of wealth. There is a need to build bridges between the universities, industry and the government. A process must be designed which calls for much more than restructuring which is mechanical; it requires putting the organics in place with a defined process (methodology) and evaluation to achieve the aims in low or hi-tech projects.

Not just description of physical artefacts, but both machines and the process or methods used production of goods and services and social functions including process of administration. "Plugging" in new technologies without preparatory changes in the organizational, work flow aspects of the socio-technical systems – which is what the government is – has adverse rather than positive effects. For example, training on the job general supervisory/coordinative training needs acceptance in industries such as IT, pesticides, television, electricity, motor cars and electronic communication that are the inputs that go into public debate. Also there is a relationship and differences between science and technology both using the scientific empirical method. The relevant infrastructure in the electronic environment has led to the invention of sensors such as radar and sonar through symbol generation. Symbols transmissions to the phone, radio and TV and training having the upper hand. The interactions between the subsystems rather than efficiency of each part controls the output.

Change is inevitable. So all organised activity in institutions, be they public or private, commercial, industrial, service or contracting, must be aware of what is happening downscale in the

sub-sub-systems, from organs to cells, virus, molecules, atoms, nuclei, fundamental particles to upscale groups, communities, nations, world, solar system, galactic and universe. Progress above in administrative systems depends on the adequate performance of the lesser systems. This necessitates the overview looking at a given situation at different levels. For example in Canada colour photographs at 4500-9000 feet height from a cruising aircraft of bean fields revealed certain patterns of blight-infection patterns, whereas walking across the field there was no guarantee of stumbling across the disease. If the same terrain were photographed at 80,000-90,000 feet, a different pattern of information useful to another expert would make itself manifest. A satellite photo would provide a yet newer overview of the same situation.

So at EWP, I got into the management consultancy that brought me into contact with various people. Mind you it was not an easy choice to make but a difficult one to convert into bread and butter, also one has to live. But God was kind and I was able to develop many people, in the course of setting up this consulting organisation that was a pioneer in management side because all your administrators or managers none of them are ever to admit they have to learn anything. They have complete knowledge of everything. The moment they say they have complete knowledge of everything they have stopped learning. And in the world of today the moment you say you have complete knowledge you have stopped learning and in the world of today half your learning has disappeared, as its no use at all.

So round about that time I developed serious differences of approach with my colleagues and EWP which was supposed to represent East and West Pakistan, I would say it really represented Extremely Worried People!

I opted out of EWP Computer Services Ltd and EWP Associates - the main consulting wing and set up an organisation in Lahore called United Consultants Ltd. But going back to EWP so for

two to three years it was alright we moved ahead and a number of organisations that we trained in these times to make use of the new management applications to get things done certainly improved their position in the market. They were able to cut costs and that they were able to do things quicker and they were able to do things from a more knowledgeable standpoint otherwise. So this is what I feel about EWP.

Then I discovered I couldn't get on with what was going on so I withdrew and set up a consulting organisation in Lahore called United Consultants. In 1965-66 we had our offices on Waris Road Lahore at that time you will find it in my bio data. I was able to transfer the process knowledge of flows in Chemical Engineering to the processing of paperwork with the background of the computers in organisations. Because that is directly related to technology. As I define it. I don't say there is anything original in what I have to say.

The Universal Applicability of the Systems Approach to Administrative Modernisation

Systems Analysis shows you the all good and bad crosswalks and myriad communication channels (socio technical government

systems included) and links by gathering all data (procedural levels) so that remedial implementation can take place not just in visible produce but for example in dam design.



Family photo myself and Rafia with her mother and our daughters Naveed and Tahseen

Remedial action needs preparatory training for acceptance and the government's repertoire of responses has to

increase with change that the law gasps to keep up with through anticipatory not reactive responses.

For wealth circulation, as well the military's multidisciplinary response to WWII that was adopted in civilian side corporations, is required. And the micro economic parts have to produce results in sync with its macro economic umbrella. For example, for updating 1863 single entry by Foster and Whiffin and updating education inputs. And for wage increases without productivity increasing which would lead to an increase in government costs of services.

Requisite variety of response Systems Analysis should equal the variety of functions, otherwise systems / governments simply cannot survive. Systems architecture upgrades need computer programmers; prior experience is essential in solving complex problems as in medical diagnosis, geological prospecting or tax planning. Because systems build up incrementally by investing in intangibles requires maintenance and can be depreciated.

The repertoire of government responses should increase when its domain changes leaving the law gasping to catch up. Old non development "traditional" methods of feudalism are outmoded because their information flows are not updated.

Similar situations exist at the administrative or commercial systems. Improvements at work/cost centres may merely shift the bottleneck to other work/cost centres creating more complications. Procedures have five year lives; become more complicated and build on past effort (iterative). The information at a particular level only provides understanding peculiar to itself. Subject experts build upon the efforts of the past. Change needs to be guided otherwise uncontrolled change is like water finding its own level. To benefit from freedom a stream needs a bank for containment. This requires systemisation of formal management processes for effective planning based on accurate information that is cross checked.

To manage the human mind needs to break down a problem to size in order to manage it; that is how up till 1700s the philosopher was the custodian of scientific knowledge, but large swathes of such knowledge accumulated gave way to the natural philosopher, as scientific philosopher held the baton till 1850 when the universities split into the arts and sciences. This spurred the superiority of the scientific method in physics, chemistry, biology and by the 1900s the social sciences, psychology, sociology and anthropology commanded attention. To date, the continued splitting of disciplines in academic knowledge continues. Then applications of scientific research made for technological progress with organisations accommodating econometricians, engineers of dozens of different kinds, industrial, psychologists, ergonomists, methods time measurement specialists, short interval schedulers, statistical quality controllers and looking at numerous functions in purchasing, marketing production, maintenance, cost accounts, personnel, public relations, financial accounts etc. In developing countries we should benefit from large organisations that have already stream lined administrative systems successfully by dealing with complexity by control systems.

After World War II, certain management sciences developed in Work Study (Operation and Maintenance, O&M); Systems and Procedures (S&P), Electronic Data processing (EDP) and Operations Research (OR). O&M teams are provided a full understanding by Systems and Procedures. Provided they can access the total detailed picture that is denied them in Pakistan. However by streamlining workflow it involves all levels of personnel in staff and line functions. Gentle persuasion to change attitudes and tradition comes from adopting a complete disciplined approach of Systems and Procedures.

Organisation charts and their boxed job definitions merely represent the levels of authority – they do not represent how organisations actually function. Informal means of progress

should be trailed to see where the paper work travels; does it move or not. Informal lateral and horizontal movements generate untidy lines of communication. Systems are a network of these procedures according to an integrated plan for performing a major activity of business such as Marketing, Production, Accounting, Purchasing and Personnel Recruiting Systems. Up to 500 documents may float around a more complex Production, Planning and Control System where thousands of different parts are involved in Stores and Procurement and Production and Cost Control. Document highways are information whether job orders, statements or the process industries are necessary for effective decision making. Objective enquiries like dust under the carpet reveal skeletons in the proverbial cupboard. Records are a prerequisite to management's approval for later monitoring for formal adoption of the new system. A separate individual should be appointed just to monitor the well being of the information flows of the organisation. All functional heads require to simultaneously agree to a sequential flow of the Horizontal time line or the Critical Path, otherwise each Head have their own views on how information flows in the organisation. Procedures need to be documented; a mere overview of objectives is not enough. Therefore involvement of senior and junior management is ensured with complete work flows and intermediate work flows obtained giving the overview of the organisation. Localised streamlining can be given to an O&M team that remove bottlenecks rather than repositioning them only if they are given full access. Inputs to computers without streamlined data entries will produce only the best quality rubbish with pessimism towards computerisation. Systems and Procedures provide a coordinated attack on inefficiencies.

At EWP it was something new for me and certainly for many others and in this way we certainly familiarised Pakistan Air Force and Pak Tobacco and several other organisations as to how the computer then assisted in improving the quality of management. Organisations like the Ghulam Faruque group, the Kohinoor

Group that was the Saigol Group at that time, some banks; United Bank was also involved then and some other organisations also. Basically the systems and procedure approach was both macro and micro oriented and brought about by what was defined later by one of the Professors at Harvard, Al Chandler, that co-ordination is an economic function in his book called *The Visible Hand*. However it was very clear unless one defined current status of an organisation is more or less in binary it was not possible to make use of electronic data processing through the computer efficiently.

It was not easy which I call the systems donkey work that requires to be done before you really bring about a change in the attitude of management. Its change over a period of time in attitude cannot be done overnight. It is something where the training aspect is phased in to achieving your objective. And at the end of the tunnel by that you need a transitory application to begin with before the routine can really begin. This training came from "flow charting" and road maps and there are other ways of doing also this. This is one very powerful way that it is the systems and procedures approach that went through a mapping exercise both at the macro and micro level.

The micro level, the tactical level working physically within the definition of the strategy from the intellectual level to *establish current status*. Where the weaknesses were found those areas were attacked and because senior and junior management had been *involved* at the same time in the definition of current status there was an agreement with all the stakeholders of how improvements could take place. Practical success was obtained about 55 years ago in POF. It was a creative exercise because all had the authority to make their own suggestions irrespective of their seniority; if they were junior or whether they were professionals in one field or another. As a consultant I introduced Pakistan Ordnance Factories to the computer in the 1960s and with the assistance of the University of Aston were able to create a centre at Wah to set up a system based on practicable technology.

Also with Pakistan Tobacco that had problems in blending various grades of tobacco of different prices of different ages for different quality cigarettes to then arrive at certain prices. This was linked up to the advances they had to give to the tobacco growers; both the timing of it and there were several other variables. So these variables were included and the computer was used to arrive at the optimum solutions. Linear programming helped here.

It saved a tremendous amount of time, the Dansik method of doing it and there were other ways of linking the variables together. However because Pakistan Tobacco put in a lot of effort on their side so within one year they were independent of EWP Computer Services Ltd. They were able to set out on their own which indicates that the consultant by himself cannot get things done productively in good time unless the client is also prepared to put in sufficient effort. So within two to three years they were in a similar position to move away on their own.

On the PAF side they had stores on Drigh Road Karachi or MU 101 or whatever it is called and we went through their inventory and stock procedures and helped them to control their inventory better both in terms of keeping minimum stock ordering and minimum reordering levels. This is better known to those who spend their time in inventory and stock control and purchasing etc. This went on and in East Pakistan in a similar way with the assistance of Raza ur Rehman and Saif ur Rehman we were able to move into various organisations there. Although what happened in East Pakistan was a little bit slower but in West Pakistan we moved ahead and part interest was the Kohinoor group run by the Saigol brothers at that time. They had a rayon factory near Muridke and they had a good management team there. They were able to make use of the technologies presented to them. In another group the Wazir Ali group or the Packages group whose feasibility study for management of Board was in the final analysis done by myself even though we gave credit to the Swedish team that came here in 1959-60 so as to obtain a World Bank loan.

We flow-charted/mapped their entire process at the macro level and at the micro level we made use of the detailed flow charts at the micro level using the standard abbreviation that I used in many different places. This was what I used in O&M that was started off in the 1930s by Galbraith and his wife. The most important aspect of this type of application is that after going through this after sometime you graduate to a higher level of sophistication and you do not need to go through the transitional effort again and again. Because the records form the basis for producing the training material for new entrants and go into the corporate memory and it is the corporate memory that provides the know how for solutions to problems that you never even thought of in the first instance. So this is the type of work that the computer bureau of EWP computer services performed from 8 Bangalore Town on Drigh Road itself in Karachi.

In the mid 1960s at PAF we worked with the Director Operations Research Air Commodore Khaqan Abbassi and he could see the advantages deriving out of this approach and they kept on with it even though they were on several occasions a lot of frustration and the fact that they have continued and over the years one can see what the inputs begin with.

In 1969, I had written an article in the Pakistan Times on "Large Organisations and the Systems Approach"; I got a call from the Air Headquarters in Peshawar from the Commander-in-Chief of the Air Force; those days they didn't have a Chief of Air Staff. He was known as the Commander in Chief of the Air Force. Nur Khan telephoned me and said he wanted to know a little bit more about this. The fact that the introduction had taken place a little bit earlier and some articles that came out and he had his own ways of finding out things I went and gave a presentation at Air Headquarters not that much came out of it but the fact is that they were ready to listen to new ideas and to have an open mind. That is what Allama Iqbal also has to say in his *Javed Nama* that the strength of the West comes from Science and Technology

and it doesn't come from wearing European clothes. It comes from a nimble intellect and having an open mind. It is not an easy matter.

So the meeting had all Nur Khan's officers there and I gave a presentation and while it didn't work for any consultancy work for the management consultancy wing of EWP Associates Ltd., but it led to further discussions over a period of time with PAF which led them to doing things and using the computer quicker than the Navy or Army itself.

These are like other organisations such as United Bank Ltd (UBL). They were introduced to it and the same way the number of individuals who got trained in EWP Computer Services Ltd were employed by a number of our clients at that time and they were in a position to introduce in their organisations and its employees the advantages of electronic data processing i.e. in preparing for it, because merely plugging in a computer could create chaos than not having it at all.



Masood Hasan and Dr Rafia Hasan at our wedding December 27, 1953, Lahore



At home in Lahore with Syed Babar Ali at my 50th wedding anniversary

The Staff College Years and Pakistan: Strides in Science and Formation of SUPARCO: 1965 war and onwards How Indian Advances in Missiles were Counter Measured by Pakistan's Electronic Counter Measure Technology (ECM)

Come the start of the 1965 war, nobody has ever told us exactly how it started but I do know that when it started the Naval Chief did not know about it; I think it was Naval Chief Muzaffar Hasan. I don't know about the Airforce but certainly the Navy were ignorant; they heard about it over the radio.

So how it actually started I really wouldn't know maybe if one goes to the archives and tries to relate one thing to another one can really find out but given the way we like to hide things out here even today it might be difficult; what was behind Prime Minister Liaqat Ali Khan's assassination and Benazir Bhutto we don't know we haven't even done anything about that despite all the progress in forensics and all that.

Once the 1965 war started out, the Generals who had got used to their contacts with the civilians over the decade or so over several years over the civil side; had lost their sharpness because they are not managers of peace they are managers of war. It was not at the General level but at their lower levels that they met the Indians when they were managing the onslaught and they were the ones that really made all the difference. All the level at which battles took place and the medals *Tamghas* and *Nishans* were given to Bhatti and several others they are the ones who really stemmed or stopped the Indian advances once the war had started off.

Also during the 1965 war at that time India had a good name in Egypt because of Nehru. He must have been alive then. They had their alliances with Russia and they had Russian missiles. At that time in 1961, we had an organisation called Space and Upper Atmosphere Research Commission (SUPARCO) that was set up

at the insistence of the Science Advisor to the President Dr Abdus Salam, a Nobel prize laureate, and was fortunately headed by Dr Osmani who got his PhD in Physics from England. He was aware of things that that Civil Servant (CSPs) and District Management Groups (DMG) would never get to know in their lives; and he got SUPARCO going and we were way ahead of India in that for many years in this business.

Since the type of work I was doing involved lecturing at many places, I had also taken up an assignment at Punjab University on Systems and Procedures for the postgraduate course in Masters in Administrative Science. Dr Afzal was heading it. USAID had helped the Punjab University to set up this department in the mid 1960s. At that time I was also on the Board of National Institute of Public Administration (NIPA) Lahore and I helped them into and understand the implications of the utilisation of the computer. I set up a specialised course based on my experience whereas I said you could derive good theory through experience but good theory may or may not lead to good results but certainly it works very well the other way around!

With the work I did at NIPA, I came into contact with the Director there at that time a Mr Hassan Habib and we became good friends and he wanted me to talk there more about the computers at NIPA that I said certainly, and ran some short courses for them there. He then became the Principal of the Pakistan Administrative Staff College opposite (at that time) to the Intercontinental Hotel now the Pearl Continental Hotel. He was conducting an RCD course there and he invited me over to set up something for the three to four month RCD course that had trainees from Turkey and Iran.

So I set it up a Systems and Procedures course for them and over a period of three to four months I introduced them to a lay basis or foundation for utilisation of the computer with the least possible difficulty and the fact is that you can see for the last twenty years

we have been talking about the computerisation of one thing or another; particularly land records but we have seen that we have not been able to computerise land records generally speaking. Maybe in one or two organisation systems it may have happened.

It cannot happen unless you *involve* the stakeholders in an understanding of the objectives behind the mission, you have to do the things and you have to get their active co-operation and there are ways and means of doing it provided you are prepared to work in an environment of transparency which is not that obvious today in Pakistan.

That's one reasons why we have so much trouble in accountability and judicial account takes you nowhere here because of the differences arising out of the laws of evidence. So at the RCD course at the Staff College for three to four months, I was a member of the Directing Staff and conducted this course and gave several other lectures on related topics. Later I moved over from EWP to UCL whose office was in Lahore. At that time the Governor of West Pakistan in General Yahya's time was Lieutenant General Atiq ur Rehman, whose family we knew well. His father was Dr Rehman.

He told me as an army man they are not reformers said General Jilani who was a year junior to me in the Doon School and who later became the Governor of the Punjab. But Lieutenant General Atiq ur Rehman was the Governor of the whole of West Pakistan. Both of them said we are not reformers because in peace times we are busy preparing for the next war and we have to follow our Standard Operating Procedures and if we don't follow them we get into trouble, they get court martialled. So when they come over on to the civil side where you have varying conflicting cultures like in the field of Education, Law and Order and in Industry. They have not been trained for conflicting cultures because the Army, Navy and Air Force have conflicting cultures that are not applicable for the civil side in any way. However discipline is common to the three.



Dinner Reception 23rd January 1970 by Hassan Habib Director NIPA, 3rd RCD Course in Public Administration & Management at Staff College, Lahore. Rafia seated second from left in front row; myself first in backrow

So I gave a presentation to the Punjab Secretariat. It lasted over three days over the end of the 1960s decade and introduced them to the Systems and Procedures debate. There were lot of critical questions and many satirical remarks from the Administrators who were responsible for the administrative failure of One Unit. In any case, it was an administrative failure not a political failure in my opinion; an absence of consistency led to political interference.

It was pioneering work in one way but it was familiarising people with the developments taking place internationally in one way and how it was possible to introduce such methodology to bring about higher productivity of the performance of the government



Dinner Reception 23rd January 1970 by Hassan Habib Director NIPA, 3rd RCD Course in Public Administration & Management at Staff College, Lahore



NIPA seminar on Systems and O&M Intercontinent Hotel, Lahore



First from left is myself conducting a NIPA Course on Systems and O & M September 1969, with Hassan Habib third from left, September 1969

servants. So that also went on at the same time and there were several assignments that we got. You can find the organisations listed out in my Bio Data. They are under the UCL or Emmay Associates list. And at that time Bhutto came into the political picture and was elected and became the CEO/PM of the country.

As Federal Secretary Defence Production 1973-77: Achievements without Precedent

After my UCL consultancy I was approached and I got nationalised and I became a Federal Secretary overnight. I was transformed from a third Class citizen to a first Class citizen I used to say to people. So I became a Federal Secretary in the Ministry of Defence Production, in Bhutto's time. I set up and people don't know what I have done because I acted as a professional manager should. Get the work done, and you get results. Who gets the credit, to hell with it. So your tank project at Taxila which is called HIT, the Heavy Industries at Taxila, which before that was the Heavy Rebuild Factory and in the project phase it was P711. T-59 tank the mainstay of the Army Armoured Corp; and now in 2020 also manufactures the Al-Khalid tank series that the Army presents at IDEAS Defence Expo Karachi every year. I got that going and the T-59 tank, now obsolete, which had 10,000 parts in it; 4000 parts were ultimately manufactured in the Chinese gifted factory. They didn't charge any money for it was a gift. But more importantly 3982 parts were manufactured in the private sector. In other words there's a deletion of 80 percent by number not value but the moment you can do 70 percent you are self-sufficient, because you can exchange know how.

Your Aeronautical Complex I set that up at Kamra. That one is for Mirages, MiG 19s at that time and then the assembly of the Mushak the M.esh1-17, I got that going. "Today, it is manufacturing the JF-17 Thunder fighter jet and several types of training and surveillance aircrafts in addition to overhauling all types of fighter aircrafts including F-16 and F-7PGs." Dawn

January 20, 2008. Then at SUPARCO I appointed myself as Chairman by getting rid of who was there doing nothing for six months and put it in order what I thought was "order" and got them to fire the first missile ever to be fired by Pakistan. It was unguided, non inertia but it could carry a payload with a 2.5 percent circular error probability. I got that going. We also got reverse engineered the 122 millimeter rocket ammunition which kaduchas there were 30 within one year. I got Pakistan Ordnance Factories (POF) that reported to me, more involved in exports and many other things.

I got the private sector and the public sector Defence side to collaborate and they made helmets to NATO specifications which they were unhappy because they couldn't get kickbacks or commissions at least not as large as they got from foreigners. So I got that thing going and then they got into plastic hand grenades and other things. When you have the technology for one thing you can transfer the know-how elsewhere. Then got going your projects that were read as dead, like the wind tunnel at Chhattar for a trisonic wind tunnel for testing things under severe movement of wind like missiles and like aircraft, like a sky scraper in a storm so on and so forth. That thing had been dead for five years; I got that going. Then there was a single and double basin propellants plant at Haripur which was also dead for three to four years; I got that going by signing agreements with Czeckslovakia and China. There was the Heavy Medium and Artillery fuses at Sanjewal that was also dead. The boundary wall had fallen down. I also got that thing going by again signing agreements with Czechoslovakia and China. And there were dozens of other things. But the point is they were done in my time, I am not saying others couldn't do it but I am saying I had the opportunity and I had it done. I had it done and I made them do it.



Defence Production days



T-59 tank that was manufactured in Pakistan with 80% deletion I organised



Visit to SUPARCO by Moammar Gaddafi with Prime Minister Zulfiqar Ali Bhutto and myself on the extreme right

Appointment as Secretary Defence and its Role: Bridging Technologies Between the Managers of War and the Managers of Peace

On my return from the States in 1950, I was in England having accepted a job with Unilever but before getting that job my younger brother was studying law at Wadham College, Oxford and senior to him was Hafeez Kardar our cricket captain there and junior to him was Zulfiqar Ali Bhutto. Since it was cheaper to live in Oxford so I was in Oxford for a month or two and was introduced to him by my late brother Khalid Hasan who later became Chief Justice Sokoto in Nigeria and Chairman Nigerian Law Commission. He passed away in 2013 in England. I was introduced to Hafeez Kardar for the first time and Zulfiqar Ali Bhutto in Oxford and there were several others. Pakistani and Indian students resident in Oxford whom I met.

This was my first acquaintanceship with Zulfiqar Ali Bhutto so on my return to Pakistan I got into my profession and worked (to begin with) in Karachi with Lever Brothers then Rahim Yar Khan, then shifted to Hyderabad Sind working for Wazir Ali

Industries Ltd. It was there in Hyderabad I came into contact with the sister of Zulfiqar Ali Bhutto — Mrs Nasim ul Islam. Mr Nasim ul Islam was running a tannery out there and his family was from Agra I think and their house was next to the Gymkhana. On a few occasions I had met Bhutto, not that I knew him but the acquaintanceship was there and he was familiar with what I was doing through my younger brother with whom he had a very close friendship.

So I had written several articles in the newspaper Pakistan Times concerning management and I had qualified in Chemical Engineering and it appears that they were looking for someone to get the Defence Production function of the Government of Pakistan (GOP) going. It was a newly created division of the Ministry of Defence about that time. I was contacted by Mr Hassan Habib who was at that time the Principal of the Pakistan Administrative Staff College, a good friend of mine who had good acquaintanceship with Mr Vaqar Ahmed, the Secretary Establishment. So apparently amongst them and what may have transpired I don't know so I was approached whether I would be agreeable to taking on the responsibility of getting the Defence Production function of the Government of Pakistan going by creating a good platform for future expansion.

So I finally accepted the offer in December 1973. I was approached and I got nationalised and I became a Federal Secretary overnight. I was transformed from a Third Class citizen to a First Class citizen I used to say to people. So I became a Federal Secretary in the Ministry of Defence Production (1973-76). In Prime Minister Zulfiqar Ali Bhutto's time.

I gave up my consultancy practice which at that time was under UCL and I got rid of my shareholding which people don't do nowadays I am told, they hold on to whatever they have and as interested parties make decisions in the government to benefit themselves. So I transferred all my shares out of my family, in case

there was a clash of interest which could happen later. This was so because prior to accepting the Secretary-ship of the Ministry of Defence Production, I was a private consultant to the Pakistan Air Force and had done extensive work out there to help them improve their productivity.

So to repeat I set up and people don't know what I have done because I acted as a professional manager should. Get the work done, you get results. Who gets the credit, to hell with it.

Defence: French Missile and Mirage Purchases and Reorganising the System: Revival to Fruition of the French Crotales and Mirages MiG 19 Purchase, the MFI 17 Mushshak Project and T-59 Tank Deletion and Nishan Jeep Project Systems

As it happened then, the Chairman Pakistan Ordnance Factory (POF) reported to me as Secretary. I took over on 1st December 1973 from a gentleman called Mr Hamid who later became Auditor General who then worked for some international agencies later. Hamid told me that he was very happy that somebody had come to take this burden from him because he said he knew nothing about it – armaments, their purchase etc. I took over from him and immediately I could see the problems he had and at that time a bundle of papers were handed over to me. It was quite clear that what type of problems had cropped up at that time several purchases had to be made for the Air Force. There were short distance Crotales from France which were ground to air missiles, there were problems with the Mirages bought from Dassault France.

I am quite sure it would have changed considerably over the years. With whatever is going on in the world today. There was no problem and I remember going through this particular contract it was US \$90 million at that time I was able to get a reduction of US \$8 million without saying much or doing much about it. I

had never been in any case been in Defence purchases in my life before. But I know that if you stick to certain principles even if new problem arise the form of the problem is very much similar to other dissimilar purchases of complex kinds with deliveries over a number of years with improvements in the technology taking place during the delivery period - so that one is on the right line. I was able to get going for this and since I had the confidence of the Minister for Defence at that time who was the Prime Minister Zulfikar Ali Bhutto. So I was able to have three Joint Secretaries who I put on various aspects of the work out there - that type of work had not been done before; staff work or looking at certain servicing functions in order to satisfy the Armed Forces the ultimate users of the armaments. There was a lot of politics going on out there.

In 1973, within the first two weeks of getting there I was told a lot of politics because I was told I will be meeting various people from time to time. So I said I am sure I will be meeting them. At that time Bhutto had appointed Mr Azeez Ahmed the Minister for State, he was a half State Minister who looked after Foreign Affairs and Defence Production but his job as far as Defence Production was concerned was that of a post office but he had no technical insights as such. I had done Chemical Engineering so to that extent I had certain background and knowledge also having spent time with the Tennessee Valley Authority in the States and gone through their Chemical Engineering units in Wilson Dam Alabama where they were manufacturing explosives also.

Anyway, the appointment was made for me to see Mr Azeez Ahmed, I think Dehelvi was his *factum factotom* like the barber of Seville. But before I went to see him I had a visit from the Director General Munitions Production (DGMP) who came and gave me a long lecture on Defence Production; he told me you are not playing with toys etc. Apparently he hadn't dealt with anybody who could talk back with him intellectually at the same level if not higher than he had himself. I listened to him and he said an appointment



Myself with the French Ambassador



Dassault Mirage later upgraded to Rose III and IV

has been fixed up for you to meet Aziz Ahmed. I said I like to fix my own but anyway since it has been set up for me so he said the Secretary Defence Division, Major General Muqeem and myself – we will accompany you. I just kept quiet as I had no intention of

taking an assemblage with me. I would have looked very foolish. It was interesting as I got to Mr Azeez Ahmed's office, Dehlvi he was the son of Dehlvi who was our Ambassador, he looked at me and he said you've come alone? I said yes he said but weren't there others with you. I put my hand in my left pocket and then in my right pocket I said there's nothing in my pocket so I must have lost something on the way! So he had a good laugh and we went in and had a normal introductory chat with the Minister of State for Defence Production, nothing more than that but it just shows that there's a grapevine working out there in order to put any person in his proper place and I wasn't going to subject myself to their whims.

After all if they knew all about it they should have put Defence Production on a firm footing themselves. Nothing prevented them from doing it so I got into my stride and was able to - they had the Director General Defence Purchase, Director General Munitions Production, Chairman Pakistan Ordnance Factory, Chairman Space Upper Atmosphere Research (SUPARCO), Chief Scientists of the Defence Science Organisation (DSO) which I renamed Defence Science and Technology Organisation. They had a project director for the tank project that is now called HIT in Islamabad and they had two Project Directors for the aeronautical complex at Kamra; one for the Mirages and the other for the Chinese MiG 19 fighters which the Chinese had given as aid to us at that time. In the meantime we added the Mushshak MFI 17 plane which had been selected before I had got there and it was really meant for the Army to take care of. So I met the Army Chief at that time – General Tikka Khan and he put me on to a Brigadier. The latter was looking army aviation so we said we would like to set up the assembly for the MFI 17, the Mushshak as we named it later at your Army aviation base in Rawalpindi. I said I want to visit your army base to see how and where it can be done at Rawalpindi. I went there and had a look round and he said we have no space out here because its being used as storage for some type of equipment that had been lying there for some time. I said put it elsewhere; he said he can't do it so I said if you can't do it you will lose the project – I am going to meet the Air

Chief in a day or two and I am going to request him to take it over at Risalpur.

I met the Air Chief at that time, Air Chief Marshal Zulfikar - so he took it over and we signed contracts with the Swedish people Saab and went ahead with that quite successfully. The previous Air Chief who was the last Commander in Chief of the Air Force Zafar Chaudhry I met him; he wanted to meet me so I met him and he said as far as these projects for the MiG 19 and Mirages are concerned it actually is a commercial venture and not meant to be taken care of by the armed forces. In this case the Air Force, as it will take away their attention from what their actual job is and put them into the commercial side that they should have nothing to do with. So he said that I would like to get rid of them and are you prepared to take them over which I did much to the disgust of several bureaucrats whom I didn't know but who made themselves known to me later. That's where the budget is I said I am not bothered.

I said if the plane doesn't take off then the ball will be in the court of Military Finance, not mine. So I took it over and as a result of that we were able to move quickly commercially on the Mirages and on the MiG 19s and within 16 months of signing the contract with Saab of Sweden we rolled out at Risalpur facilities provided by the Air Force through the Air Chief Marshall Zulfikar - the first Mushak as it was named that at that time and it was quite successful. I went up in the air in one of them and I even moved it up and down a little bit but I had never done that before where they gave me the joy stick or whatever it is called.

So anyway we got that going and on the tank side again there were problems with the Army. Fortunately, they appointed from the Air Force side Project Directors for the Mirage for the MiG 19s and also for the MFI 17s and for the tanks they had appointed a Brigadier who later became a Major General in the job at Taxila. So it was a good team we were able to get together



Myself (Second from Right) with Aziz Ahmad Minister of State for Foreign Affairs and Defence, alongside General Tikka Khan Chief of Army Staff

and I was able to provide the administrative leadership that was sorely lacking.

Nowadays more and more outside ideas invade the cutting edge of administration. Do we even know the old 106 mm RR (anti tank weapon) required Metallurgy, Mechanical and Optical Engineering and knowledge of manufacturing ammunition and others. Good governance rules in the world of multidiscipline today (in the absence of polymaths) to incorporate coordination like the economists tell us. Let us ask the British Navy how civilians won the war for England. They maybe shy to let on whether it was a civilian group led by a Physicist. Can we not then also change our way of thinking? Sir Syed met his goal after retirement and without Aligarh we may have had no Pakistan. With Allama's vision and Jinnah's mission we have to end our feudal mentality. Our Educators need to wake up just as Discipline brings about Unity and Reinforces Faith.

Success when You Place Commercial Discipline on Top of Military Discipline; Civil-Military Teamwork: Commercial Discipline on top of Military Discipline is an Unbeatable Combination

They were employees out there who were knowledgeable about these missiles and the missiles technologies who had their training in America on account of what was started off by Dr Abdus Salaam who was advisor to the Field Marshal himself. They met with the Naval people and sat down with them and worked out ways and means through electronic counter measures (ECM) how to deactivate or to ensure any missile I think they were Styx missiles that the Indians fired at Karachi harbour. And if those missiles had done their job, Karachi harbour would have been put entirely out of action in the 1965 war but that didn't happen because Pakistan had ECM measures and India did not have ECM measures to take care of the ECM out here. So Karachi was saved.

Two officers of SUPARCO – one passed away in 2015 Saleem Mehmud, was working at SUPARCO and Tariq Mustafa. Tariq Mustafa took my place later in handling Defence Production. They were able to sit down with the Naval people who were totally ignorant of the civil side of this and the SUPARCO officers were totally responsible for saving Karachi harbour from being obliterated because if anything had gone into the fuel tanks the whole thing would have gone up in smoke. The Navy recognised that and gave them honorary ranks of Commanders later. But people are not aware of the civil-military cooperation initiated by the civil side because the military kept aside because of the way they handle discipline away from the civil side. That happened at that time and fortunately it worked out alright. Now of course we are in a much better position on all; in fact from what I read and from what I hear from people and from my experience as Secretary Defence Production for four years and then being in contact in the fifth year with all the higher levels of the military, that we are ahead of India particularly in the tactical

side of missile technology which is something that the Indians are afraid of. To the extent of so much that they are trying to get assistance from Israel in order to counter our superiority in this particular field.

The 1965 war as far as the Naval side is concerned, but on the Air side the famous Air Commodore who shot down five with his F86 M M Alam; the Indians had Hunter aeroplanes; a world record to this date is less than a minute, so we had complete air superiority laid down by Asghar Khan who got PIA going. Then Nur Khan took over PIA and he led it further, then the Air Force but the point is, that is where discipline really counted. But I will talk about discipline later where it really works against you.

Now in your lower ranks they had terrific tank battles in various places going and coming out in Indian territory and at that time Shastri was the Prime Minister of India and Russia got involved and then they all went to Tashkent where of course Shastri got a heart attack and passed away. But there was this agreement which the Field Marshall Ayub was forced into, he had no options. But this also arises from the fact that we were training and sending people into Kashmir to help the Kashmiris whether we admit it or not. This was being done and continued to be done for many years and without going into the rights and wrongs of it the fact is it is the direct result of the United Nations being impotent and not being able to get their own resolutions implemented passed by the majority membership in the UN. Part considering the complaint to the UN was brought by Nehru himself not by Pakistan. So that two wrongs don't make a right but the aggrieved party goes ahead in doing things rightly or wrongly.

Net result was that the Indian Chief General Chaudhry who said that he was going to have a peg of whiskey at the Lahore Gymkhana. But that didn't happen and that peg has yet to be found! And of course now there is prohibition here! Maybe you won't even get that today!

When you have managers of war becoming managers of peace and in my talks with several three and four star Generals over a period of time I have found that they say we are not reformers we cannot bring about change. So I say your courts of law are like a 5,000 tonne oil tanker that has to make an about turn; it will be several kilometers and then several minutes maybe half an hour to come around. But in administration you are a scooter you have to make a quick about turn because if Nasdaq or Wall street sneezes, it affects you when your Stock Exchange opens the following morning and your Ministry of Commerce may have to make a decision immediately. That will never be made by a Court of Law. They will say where is the evidence. So if there is no evidence as yet if they haven't put out anything in writing, this thing is done in other ways and with information technology moving the way it is, our law will always be behind developments.

And what is going on in cybercrime right now and what they are saying about the laws out there those people who are propagating the laws today they don't even know what they are talking about in my opinion. Over here you can transfer millions and billions just like this on a computer, you have the passwords and other things so and it is done so quickly and then you move from one to another you can hardly chase those involved in white collar crime today.

Administratively you may have to take a U-turn very quickly in which according to the laws of evidence no court would be in a position to give a judgement quickly enough. This conflict has to be recognised and this is now related to the types of discipline I was talking about. When I was in the Ministry of Defence Production it was necessary to shut down the Nishan jeep project, not that we couldn't make Nishan jeeps of course we could make one or two a month but if you asked for two or three hundred a month it was impossible. There are many reasons for that I am not going into it; its like asking your cook who can cook for twenty or thirty or forty people today and then asking him that day after tomorrow I am asking 5,000 people for lunch and to cook the lunch, he won't be able to do it; you can work out why.

In fact I had to act as my own Project Manager because nobody in the Ministry had any idea how to handle a project, how to coordinate various activities varying activities some commercial, some technical, some legal even acquisition of land and compensation had to be paid at Kamra. Even getting a railway siding that some of them had never even heard of these were some of the commercial aspects. So I told them that you are usually successful up to an extent when you put military discipline on top of commercial discipline. I am going to reverse the process and put commercial discipline on top of military discipline because that is a combination that is unbeatable and you will find over a period of time it will help you in getting a project through to completion and not abort the same.

I said that as they found out later at that time they had the Nishan jeep project going in which half a dozen or so jeeps called Nishan going back to General Yahya's time that had been produced and they moved about successfully. But the problem out there was very simple like I said earlier that if you want your cook to cook a meal for twenty guests tomorrow he will have no trouble. But if you ask the same cook to cook the same menu for 5,000 people tomorrow he will fall flat on his face and that is the problem they had with Nishan jeep but it took me a year and a half to convince them and out here people keep on saying that its very difficult to convince the Armed Forces of doing things in a particular way. Well if you do things the way they do it in other words they look at various scenarios, they also do a lot of homework or staff work to put a narrative together. So I had three Joint Secretaries who I had made Officers on Special Duty – they were in a position to do the related Staff work and produce a narrative based on facts and some kind of research on airing the information and then arriving at a conclusion based on facts. So when the facts were put to General Tikka Khan and a General who was looking after Munitions they accepted my research and I found that they were very cooperative whether it was in the Navy, Army or Air Force – provided as a civilian you did your homework as thoroughly as they do their homework.

A Qualitative Shift takes Place when Scale of Production (and its attendant corollaries) go up Exponentially

Qualitative shift of problems requires shift in solutions. A qualitative shift occurs when the nature of size of effort and difficulty increases. This necessitates changing methods of control, training and co-ordination, evaluation, acquiring information. This entails the introduction of support, services and staff functions and their decentralisation but centralisation of information by MIS because administration and executive officers only make decisions on information received. So the type of information received is important to validate checks and for corrective action and changing organisational structures.

If the methods of control are not changed then the subordinates decide in their wisdom which information to send up – they field no balls in real time! A good decision maker's ability to design an efficient decision making system would be equally suspect. The expertise required for each activity is different.

For example a qualitative shift has taken place from old world familiar with the direct management of things that can be touched, seen or be felt such as stone, wood or iron to the world of today characterized by the need to first understand and second to manage complexity such as exists in an air defence or tax administration system. As wages and salaries increase without productivity the costs of providing government services also increase. Multidisciplinary analysis is needed as systematized in the early stages of World War II and lessons learnt were transferred to the civilian side after the war ended. The interchange between civil and military establishments continues apace in the outside world. So paying more attention to the method hence paradoxically immediately less to specifics. All complex problems that have not been understood hence mismanaged causes reactions including frustration –

dissatisfaction anger inefficiencies losses reorganizations
– replacements.

Another Qualitative shift example is the crane loader at Karachi port his work is the same 40 years ago as now but through much more intensive use of facilities and size of effort intensifies so new problems arise. Have we addressed the qualitative shift in our Internal Revenue sub sets of Excise duty, Sea Customs, Sales Tax and Income Tax (read utility bill overcharges etc).

Another example is can you can remember names of 250 labourers; but with the scale ups and you cannot remember 50,000 and what they are doing and who they report to? Addressing it includes changing control methods, if methods of control remain same then subordinates decide in their wisdom which information to send up, (so they field no balls in real time), training, co-ordination, recruitment, and how information is acquired plus introducing staff functions, decentralising where MIS through Information Systems Design remembers what a manager once “carried all in his head and could personally counter check”.

A third example of Qualitative Shift is when the touch or feel / see /weigh for weighing things by management is replaced by management of knowledge and processes/procedures such as in an air defence system or tax administration. Procedures are established clerical routines and operations. Such as getting stationery issued by filling in a form in triplicate to a cost centre with desk number with a description. The Store keeper gives their number to it who gets an assistant to issue it recording inventory levels and gets a receipt. This is at a particularised level.

Knowledge is the tool for handling all this. But it is easy to weigh a “thing” unlike attempting to measure or weigh knowledge. Yet we do equate purchase of knowledge with purchasing of “carrots” and “radishes”; the results leaving much to be desired. These

problems have to be solved in practice at the level where the physical transactions take place.

When I was at Defence Production, your T-59 tank that had about 10,000 parts; in it we had to get components manufactured in Pakistan. I was clear in my mind even though I did not have experience in armaments components but I certainly did have in purchasing and procurement of goods from large companies abroad and delivery periods extended over a period of time. Military discipline had been able to hand tailor a certain number of Nishan jeeps but standardisation of components was not there. So if anything went wrong with one particular jeep the mechanic would come and to put it crudely take out a sand paper literally sand a few millimetres here or there and go away. But if you have hundreds or thousands of jeeps you can't do that so a qualitative shift has taken place in the nature of problems if only on account of size – leave alone sophisticated technology or other complexities.

Out here military discipline had taken the army so far and then they could not move any further. At that time when I was appointed Secretary and asked to get Defence Production moving quicker not that they were not doing it. They were doing many things – and many things they were doing very well also. So I told them your discipline is very good but I am now more interested in commercial discipline and commercial discipline means that you now look at the financing and you look ten to fifteen years ahead which you are not just looking, you are just looking at tomorrow. And in that several factors come in which you have to look at the total amount of capital involved, what loans you require from the bank and if you are subcontracting your vendors what stage inspections you would like to introduce. Then which independent body will you have to prove or to proof try out your final product; maybe stage wise or maybe when the whole assembly is there. It would in fact would have been done stage wise because you wouldn't wait to

assemble a whole jeep and then try it out. The engine would be tried out separately.

As I said earlier that military discipline on top of commercial discipline has led to failure of production, not failure to hand-tailor mass production but I am going to reverse the process and put *commercial discipline on top of military discipline*. And I said that is an unbeatable combination anywhere in the world because we will have the advantages of both but commercial discipline will supervene just like equity supervenes over common law. You are using common sense so that is how it was done so in 1973-77, over a period of time 4,000 components of the T59 tank were being manufactured in Pakistan. Now manufacture does not mean 100 percent indigenisation because the word for it is homogenisation. You can import parts from abroad and you can integrate them with locally made parts but yet it would qualify for being called local production. But no country in the world is self-sufficient in each and every thing and as long as you can do 70 percent, usually speaking 70 percent of what you are doing yourself you are self-reliant. So about 4,000 parts were ultimately manufactured by the Chinese and the Chinese aided factory through 4,000 local vendors. This was about 80 percent deletion by numbers that is not necessarily value but that happened over a period of time. They achieved about 80 percent of the components being produced in Pakistan by the time Prime Minister Junejo came into power in 1984. The effort had started about 10 years earlier so it took about 10 years for this thing to materialise. Another example of systems mapping and the complexities involved in acquiring systematic ways and means is the now obsolete T59 tank with about 10,000 parts, 4000 were made in the Chinese aided factory in Taxila HIT (earlier it was P-711 then HRF) and 3982 in the private sector. A success of 80 percent deletion by number, not value was achieved. It would be difficult to identify any organisation in the country that has achieved this, considering the complexity of a tank. As part of the

methodology of technology commercial discipline was placed on top of military discipline (an unbeatable combination) rather than the other way around which would have resulted in failure as experienced in many other projects. Amongst other things this methodology ensured sub-contractors were paid on time, acceptance by the government that resources spent on development may have to be completely written off as in thirty two defence projects in the 1950s-60s in the UK some £500 million was written off but the national balance sheet benefitted through spin off benefits, a central agency for quality control, administration, paper particulars, development and stores required to provide technical assistance to all stakeholders including metallurgy, support staff functions of drawing, design, technical library, technical documentation and coordination, product display (a well laid out museum), fabrication, machine inspection, testing laboratories for physical, rubber, board, felt and metallographics, generating mutual confidence in users and civil manufacturers leading to these sub-contractors doing good business in the automotive sector helping the national exchequer and generating employment opportunities in a sustained fashion, recognition of information flows leading to commercial discipline, data availability from hundreds of vendor firms enabled them to expand into other lines of civil activity (applied research). This methodology enabled in record time development improvements and royalty in the purchase of the Exocet missile; on record a first contractually.

Matters moved only when I exerted my Executive authority as Administrative Head/Chief Accounting Officer of the Ministry of Defence Production that evidence was made available very quickly. An external agency would not have the means to move in a similar fashion and obtain results.

This methodology can be replicated in all other projects and successfully produce spin offs in the private sector, with post experience training courses of general/coordinative training on-

the-job. For authority without responsibility equals tyranny and responsibility without authority equals non-performance.

So it also proved that there is such a thing as commercial discipline and such a thing as military discipline. And that you don't put military discipline on top of commercial discipline and expect to get results. You will get results like you get from penicillin but if you have penicillin too many times then you may develop a reaction to it or get used to it like we are now used to Martial Laws.

Standard Operating Procedures Across the Board Required in the Civilian Side too For Self Reliance and Deletion Rate of Complex Weapons System

But the civilian side does not know enough about how the Armed Forces go about doing their homework - if they did then a number of problems that we have getting on the civil and the military side to work together would really disappear. We went ahead in Defence purchase trying to get Pakistan Ordnance Factories to export more. In SUPARCO - another place where things had not moved for a very long time. Over there I found out that a Secretary had appointed the Chairman in Field Marshall Ayub's time which meant a Secretary need not refer this to anyone and could take the decision at his own level so I appointed myself as the Chairman of SUPARCO and after six months handed it over to a person called Saleem Mehmud - who in 2015 passed away in Islamabad. In the six months I took over I brought about administrative changes and other things - not really structural reform. We keep talking of structural reform. Our reforms that are really required are organic to have Standard Operating Procedures (SOP) up to date, and to implement them and those SOPs should be to communicate knowledge amongst the stakeholders that is how it should be. This normally doesn't happen and that is why you have corruption, increasing particularly at lower levels in the sense work never gets done. There are delays and more delays that you have today.

As Chairman of SUPARCO they were given projects to complete a missile that did not have any navigation and at a circular error of probability of two and a half percent but it would carry an explosive payload over a distance of 40 kilometers. But of course things are much more sophisticated today but in order to provide the platform when you fire the missile you yet need to follow it - the radar the same type of equipment is required for the type of missiles you have today. So that training went on and I sent out many people on scholarships to Cranfield in England. They had a good aeronautical side out there. In as much as I sent many of the army side to learn Chinese – they spent a year in Islamabad, then a year's learning technical or engineering in China. In order to cooperate with them on other projects and if you know the language you can do things very much quicker.

This aspect has nothing to do with the primary functions of a fighting force and its more commercial discipline that ultimately rules the day. Because if there isn't any money then you can't do anything anyway. Mapping of systems defines current status. Disorder is taken care of by injections of information. Therefore the fixed routes as work flows (results) need to be traced out. Norbert Weiner, the ranking mathematician realised what a great leveller information is ... his formula was the exact negative of entropy or disorder. Stakeholders need to be considered. After all it is of no use using a 100 year old map of Lahore to move from Mochi Darwaza to an address in Defence Housing Authority; you will never arrive. Such an exercise was carried out by the author as a private consultant in the Pakistan Ordnance Factories in the mid-1960s which laid the basis later as Defence Production Secretary for implementation of suggestions made by me through computerisation. This is surely a unique experience! The concepts of Qualitative Shift, Technical know how, the Methodology of Technology and Accountability formed the foundation to achievement years later.

Again SUPARCO fired the first missile and reverse engineered

the 122 mm multi-barrel rocket ammo in the mid-1970s in which the application of the concepts brought out earlier led to success. Once again the assembly of the first MFI-17 trainer aircraft Mushak was accomplished within 16 months of signing the contract with Saab of Sweden. By introducing the proper processes as had been done for the assembly of MFI-17 (later shifted from Risalpur to Kamra) 30 aircrafts that had been condemned to scrap heap, were recovered. This was the by-product of the systematic way of doing things.

Commercial discipline helps you to increase your productivity and you can work more efficiently and utilise the money saved here you can use it elsewhere. For example, in the tank project of now obsolete T-59, there were no tank test tracks anywhere in Pakistan though the Army should have set one up ages ago.

One day I found out that there was a certain sum of money I was advised by someone that you're getting towards the end of April you better start spending it otherwise you will have to refund it to the Treasury by the 30 June. I said what you are asking me to do is to waste the money because you can't go through the process to spend it productively so you can waste it easily. So in any case I will take care of that. You won't get the money. So I was able to get it re-appropriated and shunted Major General Shabbir Shah, the Director General of the Tank project off to Turkey. Turkey had good relations with Germany particularly in WW1 and they had a lot of German orientation particularly for the tank test tracks so he went there, got the drawing and other things. Now that money it would have been wasted - Rs 4 crore at that time and it was then used to put up a tank test track at Taxila. It was put up on the other side where the old Nicholson monument used to be on the other side of the hill. I believe now that hill has been denuded of stones by the stone crushers out there. But as long as I was there I made sure they didn't touch the hill on the right hand side of the road going towards Hassanabdal; they were busy chiselling away or to make explosives to make stone crushed from the left hand

side. We were able to utilise these funds productively and they got it free of charge. The point is that I needn't have done it. If I hadn't done it most probably it wouldn't have upset people to the extent that I did.

Anyway the same thing goes for instance we purchased a second hand Daphne submarine in the mid 1970s through DTCA that's the Government Maritime and Technical Agency in France and it had to be refitted and had a name Cachalot when it was brought into the Pakistan Navy; but it doubled the operational capability of the submarine force at that time.

Again out here I had a good commercial relationship with Admiral Shareef who was the Chief of Naval Staff and the project was handled by the civilian side, it had not happened before and we entered into an advantageous civil contract with the French agency for refitting it at Toulon, the Naval port there and in 15 months the whole thing was done.

Out here as the Naval chiefs change, their approach to problems also changes. Now Air Marshal Zafar Chaudhry said that he is not interested in handling third and fourth degree maintenance, that these are commercial activities. Then later when Martial Law came about in Zia ul Haq's time the Air Chief at that time said they'll take it back all over. The result is in my judgement since I did the planning to do it so I know a little bit more about it than others; that they lost five to eight years in moving ahead. The tank people the same way lost five to eight years in moving ahead in spite of whatever claims they have of the Khalid tanks that maybe a very good one but time is of the essence in these things and commercial discipline is not understood properly by the military forces. Nothing wrong with that - they are not trained to do it but then you have to explain things to them and they are intelligent enough to understand it because their training is such that they have to show flexibility in war time; their creative thinking comes during war and not peace. And in peace they are used to

discipline and in much better and more up to date SOPs that you have on the civil side. If one approaches the problems logically and systematically they accept it as I found out that the Nishan jeep and other things that were also consigned to the waste paper basket but on the one hand and on the other hand you take the T59 tank with about 10,000 parts in it, 4000 parts were ultimately manufactured in the Chinese aided project at Taxila. But what people do not really appreciate it is that 3982 parts (by the time the Junejo government had taken over) were produced in the private sector. So 80 percent deletion by number not value because the gun barrel and the black boxes and turrets cost more money but the moment you can make about 70 percent of a complex weapons system then you are self reliant because you can exchange technologies with other countries that's how you can acquire them by saying we can do this for you. In my opinion both were delayed for many many years because of Martial Law coming in.

There were other projects that were dead projects such as Pakistan Ordnance Factories had two dead projects on their hands; the single and double based propellants plant at Havelian and it hadn't moved for quite a long time. When I looked at it I found that whomever was the Chairman at that time gave his assent to go ahead with it with knowledge there was not enough money to put up residential facility for the staff out there. The result is that the factory never took off. So again appreciation of civil discipline required on this side was missing. Anyway we signed contracts with Czechoslovakia and China and got the single and double propellants plant at Havelian going. Then they had the heavy ammunition and fuses projects at Sanjewal very near Taxila itself. The boundry wall had fallen down out there. We signed contracts and got that going.

Then also had a Trisonic wind tunnel at Chhattar that was dead for five years and looked into that and got that going also but you couldn't get it going by telling the Ministry of Finance I want so

much money for this and this without a narrative that supports factually what you want to do, and what will happen if you don't do it or what you can do once you have it, or how they can become financially self supporting over a period of time and even enrich the exchequer. All these things are possible but you have to have the vision or the thinking to accept certain things provided you are prepared to give credit to your subordinates. Out here everybody wants medals and whatever you want on the shoulders the result is that you don't get results; your morale is low you - as an individual maybe high - you may get several decorations but where are the results. The results only come when you can convert intellectual thinking into physical fact. You need on the civil side up to date road maps that are your SOP which in my opinion no single (Pakistan) government has it today as of this moment. If they did have them and if they were available the citizens would be knowledgeable regarding their rights. Because who has to sign what and how much time it would take and how many documents or forms have to be filled. The designs have to be there and your public pushes you to do these things and then you are in a position to get results.

In the four years I was there I was able to get a number of results much to the disgust of many for instance this goes back to the way that the managers of war are trained and how the managers of peace are trained. Not that the managers of peace are doing very well. The training of the managers of war is much better structured and much better monitored with much better feedback with the result that a person who gets transferred from area A to area B is in a position to take over within a few hours. Whereas in the civil side you get transferred from one place to another it may take you one year to find out what is going on. In order to get results there has to be much more interaction at the same intellectual level between the civil side and military which does not exist to this day. That is why you have APEX committees set up that you shouldn't need otherwise. Otherwise the result is they start with taking decisions right at the top without getting feedback as to

what is happening at the bottom. Passing an order down is alright but you need to have things implemented but where you have a clash of cultures in the various functions of the government I mentioned education, law, etc they clash with each other. You then have to find out ways and means of moderating matters so that you can optimise and reduce your requirements to ultimately build on itself.

In one case I remember the Air Force they said that their specifications are very tight. That this is not necessary to remember the item. It was item X, the Russian – one lasts for 800 hours the Chinese one only runs for 200-400 hours; lets say half the time but I said the price is one quarter so you change your specification, reduce them and as long as you are getting performance for that many number of hours – throw it away after half the time and you are yet 25 percent cheaper. So this type of thinking is something which is transferring it is both very easy and difficult! It becomes very easy where your interfaces are not so sharp if you are in a position to train post experience training at what used to be at the NIPAs and Staff Colleges if they are made to modify their thinking from “what I can see” from “what I have seen at the Cabinet level”.

Summary of New Projects and Completion of Old

So your **tank project at Taxila which is called HIT the heavy industries** which before that was the Heavy Rebuild factory and in the project phase it was P711. I got that going and the **T-59 tank now obsolete which had 10,000** parts in it, 4000 were ultimately manufactured in the Chinese gifted factory. They didn't charge any money for it was a gift. But more importantly 3982 were manufactured in the private sector. In other words there's a deletion of 80 percent by number not value but the moment you can do 70 percent you are self sufficient, because you can exchange know how.

Your Aeronautical Complex I set that up at Kamra. That one is for Mirages, MiG 19s at that time and then the **assembly of the Mushshak** the Mil Mi-17 I got that going.

Then at SUPARCO I appointed myself as Chairman by getting rid of who was there doing nothing for six months put it in order what I thought was order and got them to fire the first missile. Unguided, non inertia but it could carry a payload with a 2.5 percent circular error probability. I got that going. **We also got reverse engineered the 122 millimeter rocket ammunition which kaduchas there were 30 within one year.**

I got Pakistan Ordnance factories that reported to me I got them more involved in exports and many other things.

I got the private sector and the public sector Defence side to collaborate and they made helmets to NATO specifications which they were unhappy because they couldn't get kickbacks or commissions at least not as large as they get from foreigners. So I got that thing going and then they got into plastic hand grenades and other things. When you have the technology for one thing you can transfer the know how elsewhere.

Then your projects that were dead there was a **wind tunnel at Chhattar** a for trisonic wind tunnel for testing things under severe movement of wind like missiles like aircraft, like a sky scraper in a storm so on and so forth. That thing had been dead for 5 years I got that going.

Then there was a **single and double basin propellants plant at Haripur** which was also dead for 3-4 years I got that going signing agreements with Czeckslovakia and China.

There was the **Heavy medium and Artillery fuses at Sanjewal** that was also dead. **The boundary wall had fallen down.** I also got that thing going again signing agreements with

Czeckoslovakia and China. And there were dozens of other things. But the point is they were done in my time. I am not saying others couldn't do it but I am saying I had the opportunity and I had it done. I had it done; I made them do it. Because later when Zia ul Haq, I had a good relationship with him because he was a Cavalry man; the tank project is cavalry mechanised cavalry. I told him I can't function under Martial law, with one General looking after establishment with whom I couldn't see eye to eye on my left and Mr Ghulam Ishaq Khan on my right. So he said well he offered me things like Mr Aslam was the Prime Minister's representative on Administrative Inspection take that. I said no thank you I gave him the reason; the reason is I said sometime someone will want me to cut peoples' heads off , I don't cut them off , I put them back, train them and make them do the job. That's what I do. He said alright if that doesn't suit you go and see General Habibullah he was Minister for Production and Industries and you take Production. I went and had a long chat with General Habibullah and he amongst other things said I feel like jumping out of the window! So I came and said sorry I don't want to be a Minister for Production either because I will want to do things and I know I will not be able to do them and I will put you in a difficult position. So what can you do? I said yes One Man commission. Make me head of a commission for all the federal Management and Inspection. So he said that's a staff job and I said I am happy. And I said I will report directly to you and no one else. He said done. So within a year I will able to get out because nobody liked what I wrote. But the fact is that all these big projects that you see today came up in my time.

The question of rejuvenating a number of them. They had problems with helicopters they were purchasing, the Breguet-Atlantic surveillance aircraft for the Navy and there were a lot of spare parts and there were several things being purchased from private parties and also from government sources in France and the USA – called FMS or foreign military sales. So one of the important aspects that I could see immediately was for example

in the purchase of Crotales — the manufacturing team from Matra or France — they had met several different parties connected with Pakistan like the Pakistan Embassy in France, the Military Attache there, the Air Headquarters in Peshawar, the military finance in Rawalpindi and the Ministry of Finance in Islamabad and some other bodies also connected with the purchase. But amongst the Pakistani side the people in Paris did not know what was happening in Rawalpindi and the Rawalpindi people did not know what was happening in Islamabad and Air Headquarters was not all that familiar what was happening elsewhere. It appeared that while the sellers had the complete picture no one from the Pakistani side could claim the same. So that gives an idea of the fractured way in which Defence purchases were being made of complex weapon systems in those days!

I was able to get going for this and since I had the confidence of the Minister for Defence at that time who was the Prime Minister Zulfikar Ali Bhutto. So I was able to have three Joint Secretaries who I put on various aspects of the work out there — that type of work had not been done before; staff work or looking at certain servicing functions in order to satisfy the Armed Forces the ultimate users of the armaments. There was a lot of politics going on out there.

Post Secretary Defence: Relationship With Zia ul Haq

I recollect when Zia ul Haq was appointed Chief of Army Staff there was a reception that we all attended and a number of receptions after taking over from General Tikka Khan. He superseded a few Generals in Bhutto's selection of him as Chief of Army Staff. Zia ul Haq, a cavalry man so my association with him started quickly at the tank project in Taxila; tanks substitutes horses so it was still cavalry. I had a good project director General Shabbir Shah, he was a go getter at that time he was a Brigadier. I had a few discussions with Zia ul Haq and as far as my function

of Defence Production was concerned I got on very well with him. I found him a reticent person to begin with but as he got to know me more he got more expressive and was very happy with the work going on at Taxila. We didn't face any problems with the Military Finance Ministry either. They were very careful because they knew that Bhutto had selected me earlier and they could see that my relationship with Zia ul Haq had gelled and settled well.

Prior to the takeover by the Army an important change took place in the structure of Defence Production. I had requested and got an independent Financial Advisor. At one time our Finance Advisor used to be the same for the Aviation Division, Defence and Defence Production: the three parts of the Ministry of Defence. We were with that financial advisor and we acted much more independently and didn't have to depend on another part of the Ministry to authorise whatever they had in their powers. That being so my relationship improving with General Zia ul Haq the Ministry had no problems with him and things were rolling on quite smoothly. I met him quite frequently and could meet him when I wished to.

But to go back in time on 5th July 1977, the day following American Independence celebration day, a thing happened that was a rather fateful day for Pakistan. I had an appointment strangely on 5th July in the evening with Zia ul Haq that evening in the army headquarters in Pindi. When I got there in the evening as I entered I had a very strange feeling that something was wrong. Maybe the static in the air. I went in and there was a strange silence and was ushered in his room where I sat down, where he was busy on the telephone and he had the media people in. There weren't many like now nowadays there are any number, but he was entering into conversations with them and there was something unnatural about the situation. I came away with the feeling that something was about to happen. My friend General Haq who was Chairman of the Defence Production

Board I tried to meet him he lived in Pindi. I went to his house I found he was not there. I had another friend Aftab Ahmed Khan who at one time at the Ministry of Industries I thought I would go and meet him living pretty close to the Chairman Defence Production. But I found he wasn't there also. So I came back to Westridge where I was residing to see what happens tomorrow morning. When the morning came it was pretty obvious that the Corp Commander Pindi had taken over; General Chisti heading 111 and Martial Law was declared. With the declaration of Martial Law things changed immediately because Bhutto was under the Army control and Zia ul Haq as Chief Martial Law Administrator (CMLA) had taken over the country so within a day or two I was able to meet him. He said I will come over to your Ministry in a day or two. He had called a meeting of all senior officials of the Government of Pakistan where as a Federal Secretary I was also a part of that; he was asking the opinion of several people he mentioned two names Agha Shahi and some of the good work done by me. I was very upset because that meant that I was a marked man as far as the bureaucracy was concerned, because I had come in to the Government of Pakistan I had no backing of the Military, I had no backing of any part of the bureaucracy, I had come from the private sector and the views of the private sector. The views of the private sector with the Army with reference to the Army and their view with reference to the civilians was not very good. So we waited to see what would happen. He gave his speech to say that he would be there for 90 days and of course we know for how very much longer than that. In the meanwhile they were having negotiations with Bhutto and others. And then he visited my office as well on Adamjee Road the Ministry of Defence and Ministry of Defence Production were located and he generally wanted to know how things were going on etc, and did it work out alright and whenever I wanted to meet him I would wait a day or two to meet him.

Meetings were arranged from a green phone, from which the senior officers were directly connected to each other in Islamabad

and a direct connection to General Headquarters GHQ and COAS also from my office. Ninety days passed and he remained where he was and I thought he made this promise and not kept up to it. So I thought the sooner I can get out the better. He shouldn't have made the promise in my opinion so ultimately he said it was either his (Bhutto's) neck or his own but he should have known that much earlier.

Anyway I had taken over as Federal Secretary in September 1973 and I then requested for originally to be there for two years and I wanted to get out and I was not released, but they said do another one year. Then next day I read in the newspaper that my term has been extended by two years that was how I was informed. I didn't make it an issue with Bhutto, only a fool would have done that I was there when Martial Law came in the midnight 5 or 6 July 1977.

Accountability of the Executive Should Reside with the Executive and Effective Role of an Ombudsman

I would meet Zia ul Haq frequently thereafter and gave my views on administration generally and accountability generally and I discussed soon after his taking over as CMLA. The whole question of accountability and because of the absence of administrative accountability how inefficient the government departments were getting. I told him the principal reason is that the accountability of the Executive should reside within the Executive in the Islamic tradition. In the British tradition I told him was different and our temperament resembles the French temper more than the English temperament. And Napoleon had set up the Administrative courts or Council of State that resembled the *Muzalim* or Complaint Courts introduced in the Islamic world much earlier. With hindsight I remember now that the first reference to the Complaint or *Muzalim* court was made by Hazrat Ali. But it was the fifth Umayyad Khalifa Abdul Malik bin Marwan who institutionalised the process. This tradition of

the accountability of the Executive residing within the Executive appealed to Napoleon who was in Egypt for thirteen months and the same tradition the Mughal kings adopted the same who also dispensed justice very quickly. It didn't have to go through the judicial courts where procedural niceties take precedence and they are not bothered if it takes two or three generations for a case to reach its conclusion

The Mughals ruled for 350 years if only for this reason complaints and grievances were settled very quickly. Under laws of evidence based on the Roman tradition laws we have aren't bothered about time. They say justice delayed is justice denied but I say justice delayed is absolutely unjustified and makes the judiciary guilty of avoiding their responsibility although according to the law of the land they are dispensing justice though its man made or man written its not *Istehsan* which I call equity with morality. In any welfare State you have to look at welfare with morality and where and it doesn't matter if you're socialist, communist or capitalist they all have to operate through bureaucracy whether they like it or not and the bureaucracy has to operate in a way that they serve the people.

The capitalists say they serve the people, the socialists say they serve the people and the communists say they serve the people. But if you put the three people thinking on their own lines together it won't be long before there is a fist fight. You can have a mixture like in Sweden which is purely capitalistic but their wealth distribution takes care of *Istehsan* or equity with morality; you may not agree with other things but that is so.

In my discussion with Zia ul Haq I also included the question of or how an ombudsman went about doing his job and process to keep running the process efficiently that has been done successfully in a number of countries in Europe. After that unless given our temperament out here that is closer to that of the French, an ombudsman while he reports to Parliament

in other countries and gets information from government departments but he has to operate within the law of the land out there therefore whatever he does is subject to judicial oversight with whatever that goes with it. I said that over here you will have an ombudsman who will be given judgements that he won't be able to carry out. He will not be an ombudsman but an *ombudsmouse* in our culture out here. In France he is not an *ombudsmouse*; they get things implemented truly. In fact it is utterly Islamic. In fact Napoleon got his inspiration from the translation of the Quran and the *Fiqh* in 1899 and made sure it was institutionalised in France.

Later in Pakistan we learnt Zia ul Haq instituted the Ombudsman appointment but didn't go that far to give the authority to such an individual who would then not be called an Ombudsman; to take punitive action against officials in the administrative process in the Government of Pakistan.

An important aspect of the administrative process is not to make one feel guilty without showing a way out.

Once he had made clear to me that he had not kept to his 90 days and not want independence of the Executive; he wanted a hold on them because any judgement of the Ombudsman had to be confirmed ultimately (given the hierarchical level) by the CMLA and he need not accept anything and this is precisely what has happened all along. Many government departments who have not liked the judgement of the Ombudsman have not bothered and ultimately to go through this other process. And that's another thing that I did not like when my four years were over in September or October when he took over in 1978 I requested Zia ul Haq to release me; so he refused. He said *Masood Sahib mien aap ko nahin choron ga. Mein ney kaha mien kaam nahin kar sakta hoon apkey General ke saath aur Ghulam Ishaq Khan keh saath mien kaam nahin kar sakta hoon.* ("Mr Masood I will not let you go" ' . To which I replied I cannot work productively

with your Generals). Whatever I send goes into the deep freeze. He said Masood Sahib I am not letting you go so I said you are CMLA you are the boss, I will try a way out. One thing I will say that in the last year all that I wanted to do as Secretary Defence Production was effectively blocked by Ghulam Ishaq Khan who was appointed Secretary General at that time on his retirement as Governor State Bank. In the meantime he offered me to take over the equivalent job what Mr Aslam had in Bhutto's time, the Prime Minister's representative on Administrative Inspection. I said others and you may want me to do that and there you may want me to cut off someones head. I said I am the wrong man for that I won't do it unless of course one establishes something has gone wrong. I said my strength is in putting their heads back and giving them a kick in the pants and making them do their job properly through training them on the right lines. So he said what about taking over the Ministry of Production because General Habibullah had the Ministries of Industries and Production with him; he said you go and meet him. Then come back and tell me what you think so I met General Habibullah and it was a much longer meeting than I anticipated I thought it would be half an hour but it took an hour or longer. Out there I had a lot of discussion with General Habibullah and he was highly critical and said at times he wanted to jump out of the window. So it was clear that if he was a Minister and he wanted to do things and he couldn't do them and he was from the Army and risen to be the Lieutenant General and was thrown out by Field Marshal Ayub because he thought he was in competition with him.

I said in the Army I am not in any military establishment so I will get it in the neck so I went back and told him and I don't want to become the Prime Minister's Assistant on Administration and Inspection nor do I want to become Minister of Production. Zia ul Haq said *muen nahin choron ga* (I will not let you go). I said "okay, set up a one man commission; Federal Management Development and Inspection Commission". I said Inspection so that no Federal Department can refuse to provide me information.

So he said okay write out the terms of reference. So I wrote out and gave the terms to him and because Chairman of the Federal Management Development and Inspection Commission as a one man show. I said but in the meanwhile the Ministry of Production have worked out a new scale for their senior managers. I said it hasn't been implemented as yet but since I have been Secretary Defence Production for so long I find it financially very difficult to continue from the financial point of view because my family is in Lahore; my wife Dr Rafia Hasan was teaching in Punjab University she was Head of Department of Applied Psychology; much later my elder daughter Dr Naveed Hasan Henderson worked at Exxon and taught at the Lahore University of Management Sciences and in the UK and the younger daughter Nada Hasan became a successful professional manager in Pakistan textiles sourcing: as Country Manager GAP and General Manager Redcats Asia for Pakistan and Turkey (part of the Gucci Group).

I said that I would like to be accommodated in the Ministry of Production on a new set of employment rules. So even that was done so I think I was the first M1 officer in Pakistan much to the disgust of the Establishment Division. They had the things in view of how this came about I then accepted; financially my position improved and I was able to make both ends meet. In that capacity I met the CMLA on many occasions because the other stipulation I had to accept this staff service job which had no command authority at all. I said I wasn't interested in no command authority if I can't implement anything so I am quite happy with this service or staff function so I sent him reports from time to time because I told him I will only report to you and to no one else so he said 'done' so I reported to him.

The only other person in between was General Arif who was as far as I was concerned was a post office for whatever I investigated wrote and sent to Zia ul Haq he shunted them off to either Establishment Division or the Secretary in Chief who was General Ishaq Khan who never replied to a single one of my communication through

the CMLA. Of course so after a while I saw him and said to him General Sahib whatever I send goes in to the deep freeze. He wasn't quite sure what I meant by deep freeze; so I explained it goes there it is frozen and nobody can ever take it out I have done this for so long that so what is the use of having me here if the Secretary General and Military and Establishment Chief think what is wrong then they must tell me what is wrong and I will accept. But if I am right then they must accept. In that acceptance it meant that Zia ul Haq would have to accept. And there were many things that I knew he wouldn't want because it would make the Executive more independent. I maintain the Executive today is not independent and because they are not independent the Judiciary is not independent. The independence of the judiciary will only come about if the Executive are independent and they will only become independent if we understand the dictates of technology.

Technology as I define it "is the know how to solve problems all sorts in man made systems". Problems all sorts in man made systems: your Secretariates, your industries and other technical matter are all based on technology and technology is based on recognition of merit, recognition of detail down to binary in whatever activities that are involved and preservation of records that form part of the corporate memory of an organisation. This is the know how to prevent the repetition of errors made previously and it acts as training material for new entrants leading to ease of succession therefore sustainability of institutions that we do not have in the country. That also includes modification of the post experience training courses in the post experience training institutions that you have in the country so its not only merit it is attention to detail and three you have to recognise that technology is culturally based also because if you do things in a particular way you will have to alter the mind set and also have to have strategies, both transitional and long term which is also necessary. Another requirement of technology is that you are delivering or supplying the wants of people which include behavioural factors that they may not want your product.

If they like your product you make a profit and if they don't like your product you go bankrupt and don't continue. But technology is something you have to continue therefore you have to recognise merit, attention to detail and the cultural factors and other characteristics but these are the main characteristic. Confirmation is in that Allama Iqbal has said in the *Javednama* that the strength of the West comes through science and technology and not by wearing European clothes and what you need is a nimble open mind to new situations which reflects on the need for *ijtehad* so if these requirements are not met you will not be able to utilise technology according to my definition. The rest I don't want to claim originality but I will like to claim originality of my definition of technology which I repeat now because people tend to forget because it is the know how to solve problems all sorts in man made systems; what man makes man can unmake and that is the difference between Roman law and Islamic law. Roman law is man made therefore it can be man unmade. There are certain aspects in Islam where laws cannot be changed. You may interpret certain things in certain ways but you cannot alter or change certain things. So because I found that these requirements could not be met I also felt that getting into a command position in government would not work so I requested him (Zia ul Haq) in on more than one accession kindly release me; he didn't.

Then somebody suggested to me that why don't you meet the Corp Commander General Chishti looking after 111 Brigade in Rawalpindi when Zia ul Haq took over. So I met him and spoke to him and made sure he wouldn't like what I said so I sent him my letter to be disassociated or resignation and it was accepted so after a year of being in this staff service or support function as Chairman of the Federal Management Development and Inspection Commission I got my release and was very happy and moving from a First Class citizen back to my original Third Class citizen status.

I also made representations that didn't work out because we do not have administrative accountability; we have judicial accountability and if the judges think that it can work, I can tell them it doesn't and if it did why do we have the Steel Mill scam the PIA scam, the insurance scam the Benazir Income Support scam, your laptop scams they are all scams. Judicially you can prove nothing and the judges are helpless but there is an answer to that and that's another long story.

I refuse to retire. I maybe tired but am not retired. I am retreadded. I have two artificial knees and one artificial hip joint. I have never retired but retreadded!



With my daughter Nada and granddaughter Maliha



At home with the family, L-R: Faiz Philip, Nada, Rafia, Maliha and Myself



Myself with Naveed in Polperro, Cornwall, 2007



At a birthday tea with L-R Col Dr Najib Khan, myself, Rafia and Ikramulla Khan Niazi



A tea at home in Lahore with L-R Henry Rosovsky (former Dean Harvard University), Dr Rafia Hasan, Professor Lou Wells of the Harvard Business school and myself



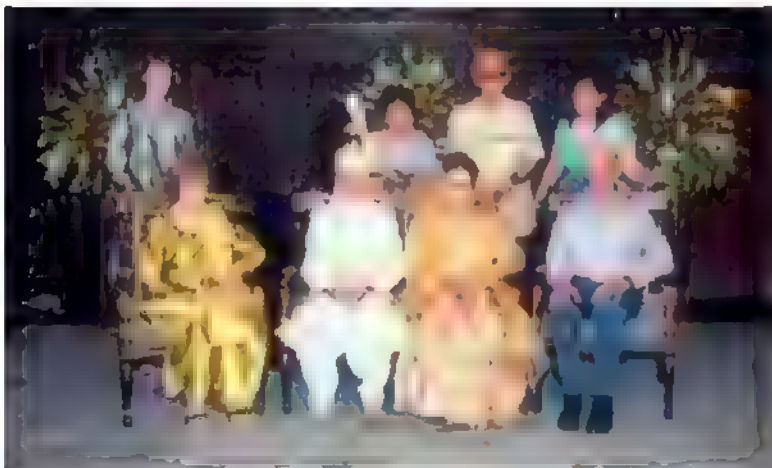
Myself with Faiz Philip my son in law at the French Horn in Berkshire UK, 2005



At my MSc (Hons) Chemical Engineering, Punjab University, 1946



When I was at Joseph Crossfields and Sons, Thelwall, Warrington, England



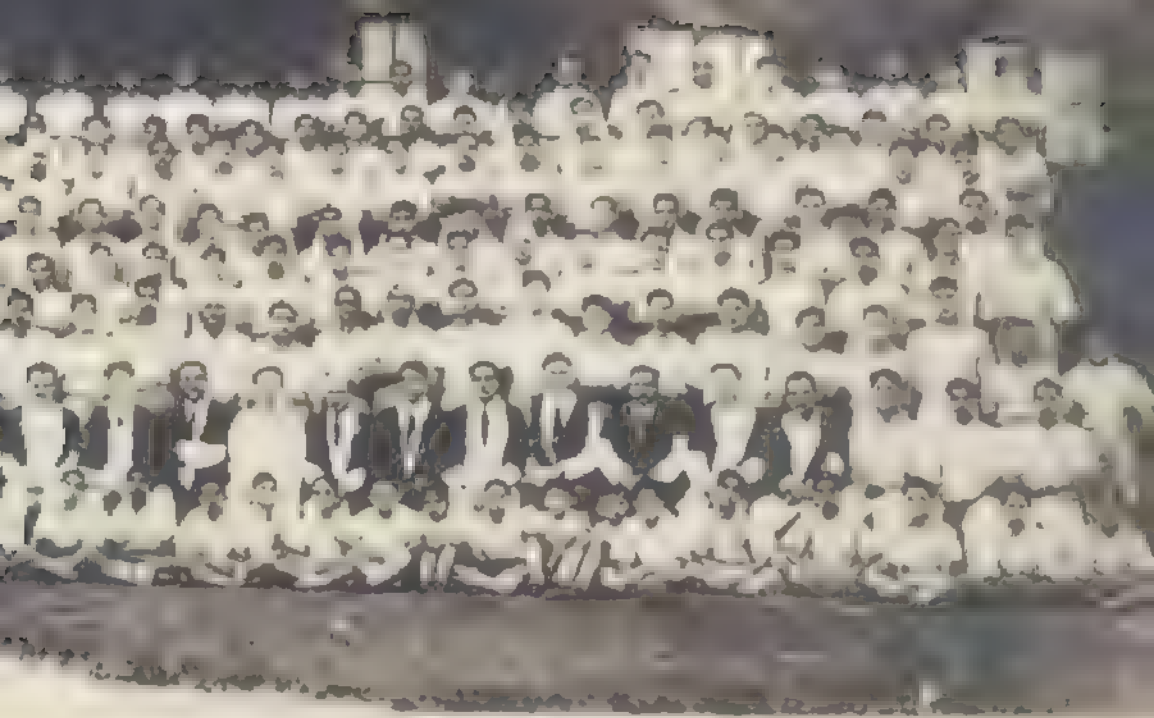
*Wedding of my daughter Naveed to Faiz Philip flanked by Jean and Ian Henderson.
Backrow L. R: Dr Judith LeGrove, Dr Rafia Hasan, myself and my younger daughter Nada
Hasan*



Group photo of Doon School 1939-40, with the first Headmaster Arthur Edward Foot, myself encircled



Zaka and Surayya Rahamtulla (my sister) of Layton Rahmatullah Benevolent Trust (LRBT), free eye hospitals across Pakistan



My grandfather, Maulvi Abdul Ghami's newly built house where I was born in 1924, located at Butler Ganj, Way Road, Lucknow



What immortal hand or eye

Could frame thy lofty form

And gird thee with this arm

And give thee back that form

And give thee back that form

And give thee back that form

And give thee back that form

And give thee back that form

And give thee back that form

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And give thee back that form

ACCOUNTABILITY OF THE EXECUTIVE AND JUSTICE WITH EQUITY OR *ISTEHSAN*

When Accountability of the Executive Resides With the Executive Gives Justice With Equity or *Istehsan* in Islam as practised by the Holy Prophet (pbuh); Misak e Madina and *Istehsan* in Early Islam; Accountability of the Executive; examples from the Holy Prophet (pbuh)

The early expansion of Islam came from a revamping of the mind set. Within ten years Madina had become the capital of a vast state; the area no less than 3,000,000 sq kms an expansion partly through peaceful means and partly war. Details of casualties, the average number of enemies killed in the course of conquest works out to less than 2 per month. In ten years less than 240 were killed, providing a practical example of avoiding unnecessary bloodshed by the Holy Prophet (pbuh). This proves the power of concepts versus coercion. The Holy Prophet (pbuh) adjudicated over disputes of various types **not** as Chief Justice or as Auditor General but as Chief Executive Officer. That meant that accountability of the Executive resided within the Executive. When the Holy Prophet (pbuh) appointed Muad bin Jabbal Governor of Yemen he asked him how he would govern. Muad bin Jabbal said that I would get my inspiration from the Quran, the Holy Prophet (pbuh) asked him and if you don't, he said then I will get it from your Sunnah and if I don't, then I will use my grey matter. So that meant that neither the Quran nor the Sunnah can

give you guidance on a problem for all time to come. And then the Holy Prophet (pbuh) said a *dua* prayer in favour of Muad bin Jabbal which meant that *Ijtehad* which was something that was laid down and this Hadith is a "*pukka*" Hadith. And this was all within the twenty three years of the Holy Prophet (pbuh) when he gave the message from the age of 40-63. So the basis for *Ijtehad* was laid down in no uncertain terms with this absolutely *pukka* Hadith. Going back to the lifetime of the Holy Prophet (pbuh) and we have forgotten that.

It was the early acceptance in Islam of using one's grey matter that led to progress of communities as a driving force. Otherwise how could Al-Kindi (813-875), Al Razi (854-925), Al Biruni (990-1045) and scores of others have flowered? Ibn-Sina (Avicenna) stands out as a master polymath whose writings were of guidance to the West for long after his death in the eleventh century. The Renaissance (based on Arabic inputs) was reinforced by positive thought. With the Reformation it moved quickly ahead. It helped design of weapons of destruction which led to military ascendancy, which the West retains to this day. If respect for learning is the basis for understanding nature, then we should accept this and so to make use of it to progress.

Now what it means is neither the Quran nor the Sunnah, can give you 100 percent guidance for all situations in the coming years and that the Holy Prophet (pbuh) understood that better than anyone else. So when he said he will use his judgement, the Holy Prophet (pbuh) raised his hands and made a supplication to the Almighty. So how one can get away by throwing *Ijtehad* out of the window is beyond me, but this is precisely what your so called clerics don't want.

Further if one reads in the Quran in Hud Verse 117 in which it says "if a community or nation are practising *Shirk* and are *Kafir*, but if they treat their citizenry equitably and morally correctly they will never be eliminated from this earth". Which set me thinking why

weren't Sweden and Switzerland bombed in WWII? Why didn't Hitler take which he could have? But you will find a completely capitalist system in Sweden, with the income redistribution process which is Socialist that is equitable and morally correct. I was reading in a newspaper, that in Switzerland they were working on a proposal that each and every Swiss citizen should get \$2800 a month, whether they are billionaires or paupers. This is *Istehsan*.

Another example is of Hazrat Yusuf (Joseph) and the Portiphar's wife. His innocence did not have a witness that he did not attack Portiphar's wife. She wrongly accused him that Hazrat Yusuf tried to seduce her and rape her but since his kurta (shirt) was torn from behind him, meaning that at some time you have to use some common sense and equity says in this case you don't need witnesses here so use common sense. Equity and justice here is to conclude Hazrat Yusuf was innocent.

Muzalim or Complaint Courts pioneered by the Holy Prophet (pbuh) were then established by Hazrat Ali and three further Khalifas that showed that the Accountability of the Executive resided with the Executive; the Mughals practice of justice.

As another example was Napoleon, when he was smuggled back into France from Egypt after thirteen months, he was knowledgeable for example that when the Holy Prophet (pbuh) sat down on judgement on problems, he never sat down as Chief Justice, nor did he sit down as Auditor General, he sat down as Chief Executive Officer. The four Caliphs or Khalifas who were elected in four different ways did exactly the same thing. Hazrat Ali set up the first *Muzalim* court, the complaint court. These Complaint Courts continued where hearings were held. Hazrat Ali to Malik-al-Ashtar "You must always keep in view the welfare of the tax payers, which is of greater importance, than the taxes themselves. The ruler who does not pay attention to the prosperity of his subjects and fertility of the land but concentrates only on collection of revenue, lays weak the land,

ruins the State and brings destruction to creatures of God. His rule cannot last for long”.

Later, the Umayyads came and it was the fifth Khalifa, Abdul Malik Bin Marwan who formalised the arrangement that every Friday he would listen to complaints himself as Chief Executive. The Holy Prophet was the Chief Executive; the four Khalifas were Chief Executives; the fifth Umayyad was a Chief Executive and he regularised the *Muzalim* or Complaint Courts. The Mughals adopted them later to the extent for example when an old lady rang the bell and approached Emperor Jehangir and made a complaint against Mukarram Khan. Jehangir was ill, he didn't keep good health, but he came out as Chief Executive Officer and gave judgement against Mukarram Khan and he was duly punished. The point is not Mukarram Khan or the old lady; the point I am trying to make is that accountability of the Executive resided within the Executive.

Having established in the Islamic system that accountability of the Executive resided with the Executive as it resided within the early Caliphate and from then with the Umayyads, then amongst all those Khalifas and then also with the Mughal regime in Indo Pakistan. And if the Mughals could rule here for 350 years, they could only do it because they not only just looked at justice or man made laws they also looked at Equity using their common sense.

Historically, one sees cycles of powers-growing up, maturing and then aging and then down because of corruption. The last laugh is always had by acting with atonement. The Holy Quran admonishes us in many places that irrespective of one's relationship with God that dealing *Istehsan*-wise with the public is a very positive attribute. Looking at several empires that were – the Romans, the Byzantines, the Panthians, the Sassanids, the Kashans, the various Muslim rulers, the Umayyads, Abbasids, Fatimids etc, the Seljuks, the Ottomans, the Ilkhans (Mongols),

Safavids and closer to us, the Mughals all weakened because of corruption in one form or the other.

In Islam religion is a secular religion. Now if you look at the secular meaning of it you get into trouble. If you look at *Misak e Madina*, the agreement of Madina, in Madina whether you were Christian, Sabians, Fire worshippers, Muslims, they were all different religions and they had freedom to propagate their religion also. They had to pay *Jazya* also and if they were prepared to serve in the military in times of war even that was excused because this tax was there to protect them. We talk of secular. If you ask an American do you have a religion. He'll say yes whatever. You ask him are you secular he will say yes. Nobody is going to say because they are secular they have no religion. This is nothing but misinterpretation by whom I call the bearded lumberjacks to save their own authority absolutely. And nobody has exposed it better than Allama Iqbal. I don't claim to know it. He was declared a *kafir* as was Jinnah just as were Bulleh Shah and Hafiz in Iran; the latter's dead bodies could not be buried in a Muslim cemetery, why? This is all nonsense; it so happens now in Kasur the town has grown around Bulleh Shah's grave. And Hafiz, he had the same problem in Persia. Now the town has grown around him. Its so unfortunate because it brings and exhibits ignorance and it is very clear that neither the Holy Quran nor the Sunnah can give complete guidance on everything and there is factual proof on it.

God never does destroys a community....as long as its people behave righteously with one another, Holy Quran, 28:59; 11:117

***Ijtehad* in Islam and Effective Decision Making**

Another example of *Ijtehad* in Surah Rehman it says *Hoorum Maqsooratun fil Khayamfa bi ayye all Rabbikumma Tukazziban* which they interpret that the *Hoorees* (companions) are only meant for men. The fact is that *Hoor* is plural; *Hora* is singular and

when you have the plural, the sex is not defined and you can only say it is a 'companion'. So if the male has a companion the female can have a companion also; there is equality there but you catch any of them telling you that! You won't find them. And when it comes to spouse, it's the wife. If it's the wife it's the husband. If it's the husband there is his wife. *Zoj* applies to both.

That is why Allama Iqbal has said what he said. I am sure he was inspired by Sir Syed Ahmed Khan. But he put it down in a way that advanced him; he had a vision and the mission was taken on by Jinnah. He succeeded in getting a moth eaten Pakistan but he did get Pakistan. And we are making a mess of it and we are continuing to do so even today. However so this disservice done to Pakistan by Zia ul Haq after I left, is leading to where we are going today. And on women's rights, I have given you two examples today. You can check with any so called religious cleric what their interpretation is; they would prefer to not talk about it. This is what I have seen and they seem embarrassed and when you ask them, they say we will think about it and they never come back. Why? Well obviously it doesn't appeal to them they don't like it. And out here, what you don't like generally, you are not prepared to hear and if you hear it you ignore it and even if you want to do anything about it you then keep quiet. So this same thing applies to women's rights but again you cannot apply across the board thinking for different cultures. The dress in a tropical country is very different than that at the North Pole and one has to accept that and what is accepted as normal in one place may not be normal in another place and that is *Ijtehad* and *Ijtehad* we have forgotten because we are ignorant.

As I see it in history, the Jews had a God who was a punishing God, the Christians had a punishing God but put love into it with more emphasis on that with one cheek give the other cheek, and Islam it has punishment, it has love, but the most important thing it says is *Rabb! Zidnee Ilmaa*, increase me in knowledge and even if you have to go to China get it. In China there were

no Muslims at that time they were pagans yet the Holy Prophet (pbuh) said go to China if necessary. This we have been told by a very reliable *Hadees*. So I find transgression of all this whether you look at the Prophet's last message at Arafat, *Misak e Madina* his conversation with Muwad bin Jabbal, the question of the *Muzalim* or Complaint Courts as first of all mentioned by Hazrat Ali; the work was done by the fifth Umayyad Khalifa and how it was adopted by the Mughals and the case of the old woman and Mukarram Khan and the *ghanta* (bell) and Mukarram Khan, a very influential courtier was punished but Emperor Jehangir was ill and gave judgement as Chief Executive Officer not Chief Justice nor was he Auditor General!

Islam is against poverty if it comes through exploitation – through injustices – through imbalance in the societal systems. One should stop the culture of things you don't need with money you don't have to impress those we despise. Have the courage to do right despite existence of fear.

That with this as a background, whatever happened out here is a logical outcome of this wrong type of thinking so you can't expect the right things to be done. Nor can you predict what the wrong things to be done. Just as in principal, if you do the right things, you cannot predict how many other right things will happen. Because if you have eleven variables you have 3.7 million ways of combining them; you simply cannot do it.

In Islamic history when the Holy Prophet (pbuh) heard complaints by citizens, he presided as Chief Executive Officer and not as Chief Justice nor as Auditor General. Similarly the Umayyad Caliph Abdul Malik bin Marwan formalized this process in *Muzalim* or Complaint Courts, which meant that accountability of the Executive resided within the Executive, as does in France and countries with the Napoleonic disposition. It means having a Council of State headed by the Prime Minister as the highest form of appeal equivalent to the *Muzalim* courts of old. The Mughal

kings worked the same way which meant good governance hence ruled for hundreds of years. Akbar's dictum "For rulers worship consists in the dispensation of justice and the improvement of the realm" and "A moment spent in the dispensation of justice is better than seventy years of devotion" . Also said by Akbar was "If I were guilty of an unjust act, I would rise in judgement against myself". Also having firm belief in the oft-quoted maxum of Muslim statecraft that "a policy can endure despite disbelief but it cannot last without justice" (Nizamul Mulk). Jehangir's first act on assuming kingship was to install the chain of justice and it is well known that the king, as CEO, delivered judgement on the complaint of an old lady against the powerful Muqarram Khan. There is nothing strange about this. After all, all our private and public companies, MNCs, armies, navies and air forces the world over ensure executive discipline within the executive, wherein merit and timeliness are usually of supreme consequence. Our colonial heritage of hardly 100 years is no match for what led to Islam's early expansion, certainly not through the sword but by ensuring equitable behaviour with different people types. In the 1857, freedom fight it certainly irked the British to see Hindus cherishing with nostalgia the memory of their erstwhile Muslim and Mughal rulers; the high caste Hindus initiated this at Meerut which were later joined by the Muslims.

The polymath of old recognizing the need to phase in big change in a articulated fashion, recognised the importance of transparency and also that coordination as an economic function. To make effective implementation needs each and every man made system to have up to date Standard Operating Procedures. This ensures turnaround can work for months. This requires a complete overhaul/retrofit of the brain.

In the absence of polymaths, we need to set up multi-disciplinary groups to attack problems arising out of technology. Such initiative has to be taken by those who control political authority. This is not easy. The major obstruction is the inertia generated by

the ego. Allama in his famous statement says:

*Khudi ko kar bulund itna ke har taqdeer se pehlay
Khuda bunday say khud poochay bata teri raza kia hey*

Unfortunately it appears to be a national habit to denigrate anything new without understanding; that is why Sir Syed was labeled “naturee” and the Allama and Jinnah far worse. We need thinking of our heroes like it has been done in the West e.g. Lord Tennyson in *Ulysses* said, “to strive, to seek, to find and never to yield”. This is khudi. In early Islamic history “The area of this state, according to historical evidence, was no less than three million square kilometers. In other words the average expansion was some 845 square kilometers per day (within the ten years Madinah had become the capital). This expansion was achieved partly through peaceful means and partly through war. In addition to details of the battles waged we have details of the number of casualties. The average number of enemies killed in the course of conquests works out to less than two per month. In ten years, less than two hundred and forty men were killed. The number of Muslim casualties was much less. This was a lesson for contemporary rulers for it provided a practical example of avoiding unnecessary bloodshed by the Prophet (pbuh)”. (The Emergence of Islam, Muhammad Hamidullah, translated/edited by Afzal Iqbal. Islamic Research Institute, Islamabad – State and Administration, p 199).

We, in Pakistan need therefore to enforce Article # 216 of our Interim Constitution of 1972 (Article # 212 of our current constitution has decimated Article # 216). Article 216 reads as follows:

“Administrative Courts and Tribunals	(1) Notwithstanding anything hereinbefore contained, the Federal Legislature may by Act establish one or more Administrative Courts or Tribunals to
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exercise exclusive

Jurisdiction in respect of:

- (a) *matters relating to the terms and conditions of persons in the service of Pakistan, including the award of penalties and punishments;*
 - (b) *matters relating to the imposition, levy and collection of any tax, duty, cess or impost;*
 - (c) *matters relating to claims arising from tortious action of Government, any person in the service of Pakistan any local or other authority empowered by law to levy any tax or cess and any servant of such authority acting in the discharge of his duties as such servant;*
 - (d) *matters relating to industrial and labour disputes; and*
 - (e) *matters relating to the acquisition, administration and disposal of any property which is deemed to be evacuee property or enemy property under any law.*
- (2) *Where any Administrative Court or Tribunal is established under clause (1), no other Court, including the Supreme Court and the High Courts, shall grant an injunction, make any order or entertain any proceedings in respect of any matter to which jurisdiction of ch Administrative*

Courts or Tribunal extends”.

In Article 212 items 1 b and 1 d have been knocked out an addition made further ... *“and all proceedings in respect of any such matter which may be pending before such other Court immediately before the establishment of the Administrative Court or Tribunal shall abate on such establishment: Provided the provisions of this clause shall not apply to an Administrative Court or Tribunal established under an Act of a Provincial Assembly, unless, at the request of that Assembly made in the form of a resolution, Majlis-i-Shoora (Parliament) by law extends the provisions to such a Court or Tribunal.*

- (3) *An appeal to the Supreme Court from a judgment, decree, order or sentence of an Administrative Court or Tribunal shall lie only if the Supreme court, being satisfied that the case involves a substantial question of law of public importance, grants to appeal”*

“Over the years the institution of Administrative Courts has increasingly commanded respect and is a strong protector of the rights of citizens wherever administrative arrogance is displayed. Such courts like the *Muzalim* courts are not handicapped by any jurisdictional or procedural niceties. In Finland and Sweden there are Supreme Administrative Courts (Justetieo-Ombudsman) similar to the French *Counseil d’etat* and so in Finland, Denmark and Norway, along with New Zealand, with its hierarchy of courts: their procedure is inquisitorial, administrative courts are not just umpires, they go into the propriety of the administrative decision and collect information through their own rapporteurs, if necessary – thereby reducing the possibility of injustice due to lack of resources on the part of the citizens to engage expensive lawyers or in getting information from government departments. Such courts judicial review is comprehensive i.e they go into motives be they personal, political or social. The onus of proving

the *bonafides* lying on the administrative authority. In Finland and Sweden the Supreme Administrative Courts are inquisitorial i.e administrative court judges are not just umpires they go into the propriety of the administrative decision and collect information through their own rapporteurs if necessary thereby reducing the possibility of injustice on account of lack of resources on the part of the citizens to engage expensive lawyers, or in getting relevant information from government departments.

In the French courts the subjective satisfaction must be justified externally as in face to face; the *Counsel* is marked for its independence and fearlessness even though it is constituted within the Civil Service Structure. Damages have frequently been awarded against the State because in France there is no immunity of the State against claims arising out of wrongful assault, battery, false arrests, malicious prosecution or interference with contracted rights. The *Counsel's* success is from directly coming under the Prime Minister and is part of the Executive; if doubts or differences arise the Tribunal of Conflicts comprising of the *Counsel* and Judiciary in equal numbers under the Grade des Sceaux (the Ministry of Justice). The Minister usually does not attend but if there is a deadlock he uses his vote. It may appear improper for a Minister to have this power but it is probably the best solution as no independent Chairman could be drawn from the Judiciary". The *Counsel* can award damages against the State. This was also published in the Pakistan Times May 23, 1972, Masood Hasan, "Administrative Courts and the Ombudsman"

In Pakistan continuous modifications of procedures and their evaluation imposes a tight administrative discipline on individuals and offending officials alike; this discipline cannot be enforced by a court of law but can only be enforced by a branch of the Executive armed with the authority to penalise the offending official. In such a system in criminal action the citizen is the defendant and the onus lies on him/her to prove their innocence. In handling grievances the Administrative Court looks upon

the State or public body as the defendant and the onus lies on the State to disprove the accusation. This means the agents of government, other than ministers, cannot be prosecuted for acts related to their official duties except by virtue of a decision by the Administrative Courts.

In Pakistan the breakdown of public administration began the day the posts reserved for ICS/CSPs were more than the number of ICS/CSPs because the difference in numbers were the equivalent of carrots for the non- ICS/CSPs who had to “earn” the self same carrots. The CSP have strengthened themselves by maintaining the status quoers. We therefore need to go in for a retrofit of our concept of administrative accountability. It is only through such an approach, given our ways of working to provide the good administrator or manager with service security by ensuring administrative accountability.

A new beginning has to be made if Pakistan is to ever have an efficient bureaucracy that can be held accountable. This is the best guarantee that the country can afford to give because authority on the one hand and accountability on the other are two sides of the same coin. Delegation becomes meaningful as it will not amount to abdication resulting in meaningful decentralisation, empowering those at their own level of responsibility by providing matching authority.

Accountability Courts or The Chancery Division or Equity Courts in England practising *Istehsan* or Equity in England and also reflected in other European Courts through Napoleonic Influence; Accountability of the Executive Should Reside With the Executive for Justice With Equity; Power of the Executive Resides within the Executive in *Misak e Madina (Istehsan)* in early Islam

Now when I talk about discipline in the course of my professional career, I became more and more aware of the necessity of discipline of different kinds. You have military discipline and you have commercial discipline. Now Military discipline is administered by the Chief of that particular Army, Navy or Air force. And it means that accountability of the Executive resides within the Executive because the Army, Navy or Air Chief are part of the Executive. Whereas on the civilian side, if you want to take disciplinary action the department can do it but appeals can be made to the departments of justice. We need to pay attention to the "lowlies" which when defined in ultimate detail equates with binary which is what the computer can digest. It is not difficult to fathom why these problems arise, it is on account of our penchant for judicial or audit accountability applied to administrative decisions. The approach is: if the body (evidence) is not found the murder (crime) was not committed. We have become experts of camouflaging the evidence/records. We have laws of Anglo-Saxon lineage. The procedure of Administrative courts is inquisitorial i.e the judges are not just umpires, they go into the propriety of the administrative decision and collect information through their own rapporteurs, if necessary- thereby reducing the possibility of injustice due to lack of resources on the part of citizens to engage expensive lawyers, or in getting relevant information from Government Departments.

In England; it's a long story I won't go into it but in the twelfth century when they started exporting black faced sheep's wool to

Europe, the technology for converting it into cloth was not there in England. There were several cases that went into the Common Law courts. Because there was no precedent to these cases. The lawyers and judges made a precedent of the whole thing and therefore those cases were taken away by the Lord Chancellor's court to (later called) the Chancery division. The Chancery Division deals with Equity and *Istehsan* not justice — or what you call it as man made justice and man made law or *Insaaf*. So the Chancery Division took it away from the Common Law courts. The Chancery Division was a superior court. It was as if there was a case taken away from our Supreme Court by such a (Chancery) court. This was done to take care of cases which the Common Law courts could not handle because there was no precedent. So it worked out in England and today they have three divisions of their judiciary, the Common law courts; the Chancery Division looking after Equity or *Istehsan* - not man made justice and then the third one peculiar to the English System is Admiralty, Probate and Divorce.

So this went on up till 1874 when they separated them but the point is that there was a court superior to the Common Law courts. Here it would be superior to our system, for example the Chief Justice would have no say if the *Istehsan* or Equity courts took it away. They tell you in Sir Edward Coke's time he told James I of England and VII of Scotland, who was also known as the wisest fool in Christendom, that you are subject to Common Law, so he said "not on my life" so he gave judgement in favour of the Lord Chancellor in a case concerning who Sir Edward Coke (who was the Chief Justice) at that time thought it should be with; from the Common Law courts to the Equity Courts - the Chancellor's courts - the Chancery Division. This remained so up till 1974 so England's movement for administrative accountability involved Equity or *Istehsan* with morality which is not much different from the Islamic concept.

In the accountability process, the understanding of the nature of

technology and the qualitative shift requires that functionaries are held accountable for policy implementation at their respective levels.

For example in England around the year 1200 it exports black faced sheep wool to Holland in order to convert it into cloth. Commercial transactions produced differences in valuation of customs duty/excise related to colour, fibre quality, lanolin content etc and each characteristic required technical knowledge of experts requiring legal intervention. Cases were adjudicated by Common Law Courts. If there are eleven variables there are 3.7 million ways of putting them together and no compendium of law or rules could possibly have all the definitions neatly laid out to assist the lawyers and common law judges. Unjust judgements made the Lord Chancellor's version of *Ijtehad* take these cases away to his court. He dispensed with due process and handed down equitable justice and after 200 years, this method was absorbed in their legal system and he used his grey matter and concentrated on equity and morality (in the absence of the life blood of the legal profession i.e precedent). Then the independence of the Chancery Courts made secured by Lord Chancellor Ellesmere by setting it up as a tribunal to decide cases not served by common law – to correct its rigidity and insufficiency and it came into rivalry with the common law courts. When it granted relief against judgements of common law in 1616 a conflict with the Chief Justice Sir Edward Coke ensued and was resolved only by King James I's decision in favour of equity (Earl of Oxford's Case). Thereafter, the equitable jurisdiction of the Court of Chancery was unquestioned. In 1873, the amalgamation of courts in the Judicature Act reconfirmed the three divisions, the Queen or King's bench, the Chancery and the Admiralty etc.

In Pakistan, we have yet to do our *Ijtehad*. In 2014, the Chief Justice and Executive's imbroglio was obviated because the Supreme Court accepted some 6000 cases for adjudication.

Many decisions trod on the soft corns of the Executive with this *suo moto* action. It is clear that the proper separation of the three pillars i.e the Judiciary, Legislature and Executive does not exist. In fact if the Executive were truly independent, the independence of the Judiciary would follow. The Judiciary have been placed in an anomalous situation pronouncing judgements in cases that should never have gone to them in the first instance.

Out here in Pakistan, for us, our temperament is much closer to the French than the English. So when we get accountability in the Executive going to the Judiciary and then the judiciary says *tareekh peh tareekh peh tareekh* (future date *infinitum* for hearing compounded by yet another future date and another future date) and nothing happens for twenty years and so nothing happens. What is Imran Khan complaining about now (2015) that its taken a year and a half for him to get where he is and look what the Election Commission is doing there. They are delaying time. I don't believe that justice delayed is justice denied, I believe that justice delayed is injustice inflicted. Deliberately. Because you can do things much quicker. In Pakistan Reference Cowasji 20 January, no judicial court can hold the concerned department for freezing the Annual Electrical Inspection of Gulf Shopping Mall under Rule 5 (1) of 1937 of the Electricity Act because the executive order is not prohibited in the book of rules. Such sins of omission can be taken care of by Administrative Courts whose jurisdiction is independent of the judicial and the methodology is part and parcel of our Islamic tradition. Why not adopt it instead of crying foul *ad nauseum*.

In Islam it is *Istehsan*. We are looking at justice all the time. Justice is man made; man defined; man defective. Tomorrow what I am discussing I can say what I can, turn round and tell you what you didn't see was a very big hole in my cheek, I was saying things but not meaning them. We are misguided by our lawyer community that it is very good to follow our parliamentary Westminster system. But they don't tell you that in the 12th Century when

England started exporting black face sheep's wool to Europe to get it converted into cloth because they didn't have the technology. So it went to Holland to process it to woollen cloth. Remember in the English language 'spinning a yarn' is a famous expression. So when the time came for valuation for customs, for excise, quality taxation, for quality the amount of lanolin, the fibre it was quite technical. The lawyers were not in a position in their precedence like AIR Law Report Pakistan Law report etc; what was the precedence, no precedence.

The lawyers were supposed to guide the judges and they couldn't. So the judges gave silly interpretations of man defined laws. In the 12th Century, the ruler in England said that these cases will be taken by Chancellors from the Common Law courts. And this experiment went on for 200 years. And in 1474 the Chancellors Court which is an equity court was made superior to the Common Law Courts. Now what the lawyers will tell you that in Sir Edward Coke's time when he told King James I in England and King VIII of Scotland that you are subject to the Common Law, he wouldn't agree. Well King James had other qualities but he is best known as the wisest fool in Christendom. He had the bible translated in 1611. Anyway there was then a quarrel between Lord Ellesmere, John Egerton Langley, and Sir Edward Coke. He was the Chancellor for 23 years from 1596 onwards. In 1616, the superiority of the Equity Courts was reconfirmed for 400 years from 1474 onwards. Now the Westminster system has the Common Law Courts, The Chancery Division the Chancellors courts, The Admiralty and Probate and Divorce peculiar to England. But the fact is it is basically Islamic when you look at *Istehsan*.

In Mughal emperor Jehangir's case with that old woman and he didn't keep good health. She rang the bell and even in bad health he heard it and the courtier was punished severely. But he was Chief Executive Officer he was not Chief Justice or Chief Auditor. And as long as you have this (Chief Justice etc) it is a farce of

administrative accountability which is totally non-existent. You will end up by having Martial Law having military courts and you will find you have developed immunity to Streptomycine you've been given every day.

Napolean's Adopting of the Islamic *Fiqh* in his Administrative Reforms or *Droit Admininstratif*

Now Napolean in his own way did so. He took an expedition to Egypt. He was incarcerated in Egypt for 13 months because Lord Nelson sank his fleet in the Abukir Bay in the Nile Delta by navigating between the land and the French naval ships there where they thought there wasn't enough water, so he took a risk and went through and sank their fleet. So Napolean was stuck in Egypt for 13 months. The French Admiral was sleeping. Napolean had with him 150 self financing French experts and scholars in various fields; they came at their own expense so he had to make use of them so he put them some on to translate the Islamic *Fiqh*. Some translated the Quran, some helped to set up the post offices; they got street lighting going and several other things not so much as to please the Egyptians as to spite the Ottomans because the Ottomans were the real enemy at that time. The Napoleonic approach, the three pillars are kept cleanly apart. This came about from when Napolean absorbed Islamic ideas during his forced sojourn in Egypt for a little over a year, per kind favour of Lord Nelson who sank his fleet in Abukir Bay. Napolean made sure administrative accountability was separated from legal.

Napolean's Administrative achievements covered:

1. Advanced Income Tax
2. Internal Revenue Organisation
3. National Fire Service
4. Forest Department
5. Foreign Trade Council
6. French Legion of Honour
7. Streamlined their educational system

8. Bank of France
9. Women's emancipation
10. Gave a new constitution (within six months) which reviewed 14,400 revolutionary decrees. There were about 57 meetings and Napoleon contributed positively.
11. Set up government audit
12. Constructed three canals (by pass of Lord Nelson's command of the seas)
13. Connected France, Switzerland and Italy with tunnels/roads
14. Constructed three ports
15. Introduced Statistical Surveys
16. Challenged (successfully) the papacy
17. Regulated Commerce
18. Gave prizes for industrial innovation e.g Jacquard for his loom, and for the production of sugar from grape juice even though this was financially unsound
19. Universal Male suffrage
20. Set the age for marriage
21. Separated the Judiciary/Executive/Legislature adopting Islamic, Complaint Courts (*nazar fil muzalim*) methodology that was finalised by the Umayyad Caliph Abdul Malik Bin Marwan i.e. Accountability of the Executive resided within it. In France it was exhibited by the *Droit Admmistratif* and *Counseil d'etat*. This must have been confirmed in his mind when stranded in Egypt for 13 months per kind favour of Lord Nelson/Aboukir Bay.
22. You will agree the above by far 'out did' his military achievements, where he finally failed – he met his *Panipat*.

In Pakistan the Executive is happy that the process of judicial review exists because it lets them off the flexible administrative hook on to the "rigid" judicial hook. Here the judiciary's due process is limited: judicial courts do not have resources to appoint professional investigators to investigate the usual lack of evidence and where technicalities are involved (as in the black faced sheep's

wool example) and with absence of precedent the chances for unjust decisions exist. In the past we were thus landed with the doctrine of necessity where its originator decried in his book "From Jinnah to Zia". Look at its disastrous results. It is not the legalists who are drafting our laws in a foreign language. They ignore time. How do you act quickly in law if futurity is defined by "bail before arrest"? Countless people are involved at the tactical level of implementation and retailing but very few at the strategy or macro level in planning; it is at the lowest level where physical transactions take place that makes or breaks the reputation of the system.

Impediments to the continuity of the administrative value chain arises out of judicial and audit accountability that are discontinuous in nature. Both come into play **after** a sin of commission, never before. The only futurity there is bail before arrest (which has a limited time frame); whereas the decision maker has to give judgements everyday concerning the future and should be encouraged to work on the approach that the approximately correct decision at the right time is far better than the absolutely correct at the wrong time; you **can** correct yourself as you go along.

The administrative process, since it is continuous, the question arises how the law should be administered with an open mind considering both equity and avoiding delays. This vital aspect is usually ignored as it concerns "lowly" procedures, which are best left to the clerical staff to work out. That is why the process or systems and procedures (the organics) must be defined in all their glorious detail (with the computer and binary); this will reduce considerably but not eliminate discretion through well established ways of mapping that have to be kept updated through maintenance budgets. Senior administrators fight shy of this essential donkey work. When we do not have adequate word in Urdu for "maintenance" how can the concept be understood much less the activity – whether preventive, predictive or even break down maintenance! This ensures the taxpayers money gives

reasonable value for resources utilised. It is not for good reason that the overall policy/guide for conducting the work of government is entitled the **Rules of Business**, yet things are done in a thoroughly unbusiness-like fashion. We need to pay attention to the "lowlies" which when defined in ultimate detail equates with binary which is what the computer can digest. It is not difficult to fathom why all these problems arise; it is on account of our penchant for judicial or audit accountability applied to administrative decisions. The approach is: if the body (evidence) is not found the murder (crime) was not committed. We have become experts of camouflaging the evidence/records. Please observe that the malaria infected individual is cured of an earlier contracted disease (audit and legal approach) whereas prevention is forward looking (administrator's approach). Further the curative approach never enlightens us on how to adequately define the "lowlies" or help to keep the up to date, but inflicts individual punishment through the side effects of drugs or a prison sentence. Prevention is concerned with systems that over time removes a lot of administrative loose jointedness as it includes specific training of administrators or executives on-the-job to help them perform their functions more productively i.e a value added approach. Also systems and procedures with maintenance are the vessel for plugging administration sieves - the huge holes that are cesspools of sins of omission permitting larger fish to move through with impunity.

Now Executive takes action and the decisions whether they are right or wrong are made by the judiciary. This is a basic difference in the accountability that had led to severe problems. Which is what Napoleon did in France. He had to smuggle himself back to France but in the meanwhile they translated the Quran and the *Fiqh* into French and he gave them post offices and roads and road lighting to spite the Ottomans more than anything else. Then he smuggled himself back and with the Council of State the Administrative Courts in France are similar to what Hazrat Ali started as the Complaint court or *Muzalim* court which were taken care of in the fifth Umayyad Khalifa, Abdul Malik Bin

Marvan's time. This was adopted by the Mughals which is why the Mughals ruled here for such a long time. The point being here accountability of the Executive resided within the Executive as in present day it does in any private or public company or MNC or in the Army, Navy or Air Force the world over. This has worked very well in accordance with our Islamic heritage.

Realism means reassessment of values in the intellectual context of the modern world e.g in the Arabian tribal society there were no prisons, no medicines for schizophrenia, that being exiled from your tribe was equivalent to a death sentence.

Napoleon studied the Islamic way and many said that in a secret way he had accepted Islam. The point is that he familiarised himself because he had an open mind. Just like Nur Khan had an open mind later to find out things.

So it is important then one should look at what happened when Napoleon conquered Egypt. He had a 159 self-financing intellectuals with him and he was stranded in Egypt for thirteen months because Lord Nelson sank his fleet in the Nile Delta in Abukir Bay. He came just between the land and his ships. And it was just deep enough for him to go through and out. So for thirteen months what did he do then. He had 159 scholars with him who had financed their own going with him. What did they do; they translated the Quran, they translated the Islamic *Fiqh*. He gave them roads, he gave them a post offices, he gave them street lighting. Not so much to help the Egyptians but to spite the Ottomans who were the real enemy. When he smuggled himself back to France in 1800, he made sure that administrative accountability resided with the Executive. That is why you have the *Conseil d'Etat*, the Consular State, *Droit Administratif*, the Administrative Courts. Coming back now was what Napoleon did when he went back he encouraged accountability withing the Executive; that meant France now has a Council of State called Administrative Courts; *the Droit Administratif*, and the thing at

the top are headed by the Prime Minister as the Executive called another name and judicial matters go to the judiciary in France and administrative matters go to the *Droit Administratif*. In case there is a conflict between the two they have a tribunal of conflicts in which the Minister for Law is the President and the Chief Justice and the Prime Minister can sit down but that has never happened because they can decide if it is judicial or administrative before it goes any higher. Now you have that in many European countries today because the Napoleonic influences are overriding. In Sweden you have Administrative Courts; you also have an Ombudsman, you have more than one Ombudsman for taxes; for prisons etc. Coming back now was what Napoleon did when he went back he encouraged accountability within the Executive; that meant France now has a Council of State called Administrative Courts; *the Droit Administratif*, and the thing at the top are headed by the Prime Minister as the Executive called another name and judicial matters go to the judiciary in France and administrative matters go to the *Droit Administratif*. In case there is a conflict between the two they have a tribunal of conflicts in which the Minister for Law is the President and the Chief Justice and the Prime Minister can sit down but that has never happened because they can decide if it is judicial or administrative before it goes any higher.

Now you have that in many European countries today because the Napoleonic influences are overriding. In Sweden you have Administrative Courts; you also have an Ombudsman, you have more than one Ombudsman for taxes; for prisons etc.

Then Finland, Sweden and Norway has them. And you have tremendous amount of influence in Belgium, Holland and other European countries. Not so much in the South of Europe. The Mughals could rule over 300 years because of this approach but out here as long as you have Roman law working and if I criticise the lawyers so vehemently I must have good reason. My father was a lawyer. He was offered Silk; he refused it.

In Norway and in Finland and Denmark and you have influences of it; in Belgium and Holland and you have some influences of it in Germany also. Accountability of the Executive was brought to the fore by Napoleon in Europe. Accountability in a sense was taken away from the judiciary for 400 years from 1474 to 1874 in England and lawyers don't tell you that.

Allama Iqbal's message of Spiritual Democracy and Role of Technology: *Ijtehad* in Islam and Spiritual Democracy

I was with Government of Pakistan for five years. After having been a part of it what did I feel? One of the things that Zia ul Haq did was absolutely against the last sermon of the Holy Prophet (pbuh) from the mount of Arafat where he said that there will be no distinction between the Arabs and the non Arabs, the blacks whites etc; in other words there will be no such thing as this caste or that tribe or whatever and Zia ul Haq said that your elections will take place not be party based so it went back to the *biradari* or tribal system again which goes against the last sermon of the Holy Prophet or absolutely it clashes bang on and so there was going to be trouble there and when you have the so called clerics coming in and history shows that whenever they have come in logic walks out and you don't have any *Ijtehad*. According to Allama Iqbal that I agree with you end up with *Sultaniyat*, *Mullayyat* and *Pirdom*. The monarchical system and listening to what the so called clerics have to say and their misinterpretation or their interpretation to serve their own ends or serve the ends of their employers or their rulers leads to disaster. And the worship of the *Pirs* he says these three things have led to the weakness of the Muslims which is in my opinion correct because it has helped to build up sects; one sect against the other and the enemies of Islam are very quick to make use of this divisive instrument which we can see today is what is happening. In my opinion it is fully on account of this.

Zia ul Haq had done this also; he brought religion in and this goes

against what Jinnah had said also that was censored by Muhammad Ali who was Prime Minister in which Jinnah had said in a sense you will not be Muslims, you will not be Hindus, you will not be Parsees etc, you will be citizens of the State in other words there will no such thing as a minority. You are Pakistanis, you are not a minority. This goes back to *Misak e Madina* where the Holy Prophet (pbuh) he entered into a document where all faiths were free to have their own personal laws whatever they were and to be accepted as full citizens at that time the city state of Madina that in 10 years grew beyond imagination to a very very large empire. So this had to do with Madina.

To that extent again Allama Iqbal had to find a way out because the word secular and religious are really meaningless when you talk of Islam. What is secular, is religious, what is religious, is secular. So he said if you are to do anything call it a spiritual democracy in other words unless the spirit is there democracy won't work and you can see democracy, capitalist, socialist they all say they're democratic and even the democracy we have today in Pakistan is misused; look at the elections, look at the Election Commission they think evidence is given to them. If you are a person against whom there is so much criticism even though nothing can be proved then you remove yourself and say go find out and if I am cleared, then come back. And this has been done in other countries. And this is a part of understanding technology because technology brought you there and it can bring you back again.

We claim to follow Allama Iqbal's thoughts; we do not. Jinnah did and look at the results. We got our country in a hurry. We lost half of it through our own foolishness. Another chance has come our way to bring us together with what is left. International politics has brought Russia and China together because of common economic interests. USA investment in China has led to huge terms of trade surplus for China. To sustain this development (change) we need to make sure the "new" silk routes need to

be “renewed”. We should thank Sir Feroz Khan Noon for the purchase of Gwadar when he was Prime Minister. Gwadar port if properly developed is not a simple game changer for us. It is an international event that will have consequential effects far beyond just movement of huge quantities of cargo. It will lead to thousands of miles of ribbon development along the several communication highways that will come up. World financial centres will feel its effects. Movement of currencies will alter and new economic centres will emerge. Gwadar will be able to take the largest oil tankers as it can be a deep water port. Its throughput is at 400 million tonnes per annum . To give an idea India’s ports can handle 5 million tonnes per annum turnover. For comparison Chahbahar is 10 million tonnes per annum turnover. It will benefit India also in many ways as it includes access via Myanmar to vast areas to its North. Of course this is not what political USA would like because it must always have some enemy. The yellow peril gave way to the red cold war and now its against Islam. It keeps the \$60 billion arms export going. It is clear we are not doing our best to ensure the best of CPEC. One requirement for optimum technological development is amongst others recognition of merit, transparency, multidisciplinary approaches etc to ensure respect for coordination as an economic factor. How to accommodate conflicting requirements as a game in which all stakeholders benefit will call for strategic thinking.

Science vs Technology

Science I haven’t spoken about yet that is very different, which I will do. In science you control your environment that you cannot in technology and you do it within four walls and you change one variable at a time. You can shake the whole world with something completely new overnight and you may also win the Nobel prize. And in technology you try and do that you’ll go bankrupt. If a motor car manufacturer who knows what his next model is going to be, who cannot amortise his research and development costs and so is unable to build up a reserve to finance more research and

development and yet give the shareholders or the stakeholders require a profit then he will go bankrupt. So the considerations of the methodology of science and the methodology of technology are entirely different though both may use the empirical, inductive or scientific method. So this is also a requirement of technology. Technology is the know-how to solve all commercial, industrial, administrative, technical and non technical problems in man-made systems.

Technology satisfies the wants of the citizens. It is thus linked directly to behavioral factors as knowledge base expands. Hence, new disciplines with unaccustomed names come into being such as ortho-molecular psychiatry!

As society developed over the centuries, adding on to what existed in the past. Ownership of land led to the development of two dimensional geometry. Astronomy developed in order to be able to navigate in a particular river, sea or land. Mechanics developed in order to provide housing. This list could be expanded enormously. Since the then inventory of knowledge was limited it was possible for one individual to absorb it all! Such individuals were the philosophers and they had knowledge in all aspects of human activities which included philosophical, religious, mechanical, geographical, production involving weaponry and its maintenance, transportation. This segmentation continues apace at an increasing pace. The sum total knowledge available to mankind could be contained in one person. These were the philosophers or polymaths of old. Philosophers held sway by the end of the 18th century when knowledge expansion gave way to the natural philosopher who in turn gave way around 1850 (when the universities split into arts and sciences) to the natural scientist. What this meant in academia was acquisition of knowledge progressed through the creation of new disciplines, by 1850 we had others, Physics, Chemistry, Biology, several kinds of Physics and several kinds of Chemistry. This specialisation continues and this "development" means "change". The wants of

society led to investigations on the practical side of life through the splitting up of knowledge with even more disciplines developed such as Financial, Cost and Management accounting, Training, Maintenance, Procurement and Inventory Control, Human Resource Management. This was also reflected in military establishments which developed in several segments such as Signals, Transportation, Ordnance, various kinds of Engineering, information Technology, even Chemical Corps. It is important to accept this will continue with our greater understanding of nature with over two dozen types of Psychology and Economics, hundreds of types of Engineering all examining the same nature from various points of view. This is why Professor Chandler in his book "The Visible Hand" states that co-ordination is an economic function with all that goes with it. Our book of guidance enjoins us to seek knowledge like acquiring a lost camel.

Technology pushes us to develop sympathetic attitudes towards knowledge acquisition like having a good carbon footprint in this machine usage. An example of a new approach developed in WWII in order to avoid starvation England had to import food. The obstacle was the hold of U-Boats which sank the cargo vessels. The solution was provided by a team of civil scholars! The premier service – the British Navy- had said there is not much more they could do about it. However the civilian team led by Physicist PMS Blackett consisted of physiologists, 2 mathematical Physicists, an Astrophysicist, an Army officer, an ex- Surveyor, later followed by more physiologists, a general physicist and two mathematicians. (It is of interest to note this team also proved moving ships in convoy reduced sinking losses).

The problem that faced within was how to increase the sink rate of German U-Boats about to a level that would enable the population to have enough to eat. Within a few weeks they had the solution in which the modifications made in the water pistol of the depth charge to explode almost on contact the sea water rather than at one hundred foot depth. The Physiologists had put in the fatigue factor

of U-Boat sailors, ignored by the Navy! The German survivors were surprised to learn that the explosive strength had not been increased. Technology is indeed complex and multidisciplinary in character. However, this simple change led to Britain surviving long enough when Americans entered the war.

Another very pertinent example illustrates what is Technological know-how. For example a vacuum created from (1690) and suggested that it may move a piston, but it was Savory an army engineer who used pressure to move the piston by low water lifts pumping out water because mechanical engineering technology had not developed sufficiently, then Newcomen an ironmonger/plumber made a blown up version of the engine, then an internal jet was introduced for cooling and atmospheric pressure moved the piston at 4 horse power at 30 percent of using horses, then in 1767, Smeaton an instrument maker, by boring better cylinders made no new discovery but in doing so raised the piston to 12 horse power a 300 percent increase, then in 1775, Watt another instrument maker, supplied a separate condenser to the engine and steam moved the piston with a governor for control introduced so doubling Smeaton's 12 to Watts 24 horse power and later the two stroke engine upped output by 50 percent to 36 horse power, then in 1800-30 more than one cylinder period machines introduced output by 300 percent bringing output to 100 horse power!

Allama Iqbal's views on technology were that it is not just a matter of wearing European clothes, it is a matter of using ones brain to be able to latch on to creative thinking. There is a direct relationship between culture and technology.

Zia ul Haq created the religious problem man made and set up his council and we have had very regressive judgements by the Council of Islamic Ideology look at the kind of pronouncements coming out now in my opinion others may think they are wonderful, I don't. What can you expect from the bearded lumberjacks. I use



Self planting a sapling at Chand Bagh School, Lahore

that term because I was in Government College in 1940 and there was a milk bar there run by a Sikh who was 6 foot plus and had size 14 shoes and he had a long beard and highly respectable in everything so he was my original bearded lumberjack, called Sardar Nar Singh. When these so called religious people come in, logic walks out.

So it is this *ijtehad* that is required and they prevent this *ijtehad* because it goes against their interest. So you will always find that those political parties that come in the way they do with special reference to Martial Law. When I interviewed General Atiq ur Rehman in General Yahya's time he was the Governor of the Punjab and General Jilani we were meeting almost every day. We set up the Chand Bagh School at Muridke Shiekhupura Road.

They said we are not reformers. They are trained for war not peace. I said I am a manager, I am for peace not trained for war. Now if in peacetime a manager of war takes over and if in their own military units the discipline is better than in the civil side and there is a definition of Standard Operating Procedures you

operate in accordance with them they tell you if you don't you get court martialled because accountability of the Executive there lies within the Executive not the judiciary.

Whereas on the civil side it is not like that; your culture in law and order is different from that of education. Your culture in education is different from that of industry from commerce from social services they are completely different yet you have to integrate them so the way one thinks is different. The discipline you have on the civil side is different from the military but as a result to their reluctance to be reformers their only allies can be from the right; its not possible in any other way. And who are their allies, the bearded lumberjacks! And in all martial laws they always attempted to get the support of religious right and by giving them perks it comes very easily to them anyway at the cost of the country. Something I think the military has realised today. They have seen what has happened this has helped to introduce corruption that is a symptom not a disease. We are treating it as a disease many times and we are led up the garden path. So the necessity is to go back and look at our secular Islamic traditions.

Corruption is a symptom not a disease and lower level corruption is qualitatively different from top level corruption. Judicial accountability of executive indiscretions is handicapped by the judicial due process, particularly when technology enters the picture. Corruption at the top will disappear within a few hours not 90 days provided the ministers know how to read between the lines in a file and therefore ask the right questions, through the relevant Secretary. You will be surprised to see what happens particularly in contracts, prices fall by 10-25 percent in no time! Corruption at lower levels needs a macro job with micro inputs – something that foxes our policy makers at the highest levels. The Fulton Report UK on improving performance of civil services shows just this. Improving work flows organically are required and not structural reforms. Between 4 – 6 percent of GDP is lost because of bad governance and corruption. That is why no

law whatsoever is good enough to punish the corrupt hence prevention is better.

Secular not in the sense that the Oxford dictionary may tell us but secular in the sense what common sense tells us and that is when the Holy Prophet (pbuh) sat down in judgement he did not sit down as Auditor General nor did he sit down as Chief Justice; he sat down as Chief Executive officer and gave his judgements. It was in Hazrat Ali's time that the *Muzalim* Complaint Courts were spoken about but it was the fifth Umayyad Khalifa Abdul Malik Bin Marwan whom I think organised them in a better way. The *Muzalim* Complaints Courts when a citizen made a complaint the military were kept away. He kept this every Friday. It meant that the Chief Executive of the Nation or community who was giving judgement so the accountability of the Executive resided within the Executive and not within the Judiciary - the Roman Law. It gets you nothing; it is necessary but it is backward looking because executive accountability is forward looking not backward looking. You want to prevent things from going wrong. You can't put things that have gone wrong right. If there is a fly in the milk you can't eat it and have it. You can't.

So the Mughals adopted the same way of working so did the Ottomans in their own way in which the accountability of the Executive resided with the Executive. So that old lady in Emperor Jehangir's time who wasn't keeping good health. Mukkaram Khan was the courtier - she rang the bell he came out and as Chief Executive officer of the Mughal empire, he gave judgement. Now what is wrong with that to be applied with us out here but our problem is with the British colonial rule as it is and Roman law and the Law of Evidence is very strict as it should be.

Just as the rules of audit should be otherwise you end up with another Enron; with creative accounting and the Doctrine of Necessity.

My uncle Justice Ghulam Hasan was a Supreme Court judge in India; my brother Khalid Hasan was a barrister from Grays Inn and a senior Judge (Chief Justice) in Nigeria. And our Rawalpindi branch of the family are Mantos. They changed their name to Minto. Mehmud Minto and others were all lawyers. Abid Minto, a lawyer. So it is not without good reason in our way of thinking it will work. That our temperament is closer to the French than English. The English are much cooler in these things and don't mind if things take time. The French are in a hurry. Look what they did to Gaddafi. After having agreed with America that if you give up your atomic programme we won't touch you.

Anyway, we must move in that direction of the Complaint Courts. I have investigated in detail that's discussed with many Chief Justices: Justice Fazl e Akbar, Justice Haleem, Justice Nasim Hasan Shah, then in Bhutto's time, Deputy Commissioner Ferozepur at the time of Partition. I discussed when they were Chief Justices and after retirement. While they were Chief Justices they have one point of view. After they retire like many bureaucrats, some maintain their own viewpoint and some of them agree to be flexible. You have to be flexible in administration because things can change overnight. If someone sneezes at Nasdaq, it affects you the next day. In law it doesn't matter. We get justice and *insaaf* from all our courts all the time. People say it isn't. Its in accordance to the law as it is written now today there's no law that prevents a judge from giving you *tareekh*, a date for the next thirty years. Its quite legal so why are we complaining. It is justice it is *insaaf* but it is not equity with morality or *Istehsan*. We need equity with morality with *Istehsan* and unless we have that I am sorry. The amount of corruption you have has gone beyond bounds it has affected the exchange rate and the monetary side. Our exchange rate should still be Rs 60 to the dollar. It is Rs 105 (in 2015). Why? Because there has been so much skimming from the top and so much purchase of dollar. That the price of the Rupee, the value has gone down. Those who live on fixed incomes have to pay three times as much

for what they have to buy today in 2015. Porridge that I was getting for Rs 95 is now Rs 105 (in 2015). You don't even know if you are getting the right meat!

So how do we proceed? The first is not to be afraid of the truth and work towards transparency. A phased in transition is required and transparency helps define a phased in strategy. It worked in Pakistan Ordnance Factories over 50 years ago and hardly affected its budget.

Lawyers or *Lie-yers*

Truth is unconditional. And non-productive activities control the productive where there is the battlefield of the bureaucracies. At the UCL consultancy we had some acquaintances from the family although all my family have been in Law. As I say in Pakistan the law is pronounced correctly a *La*. *La* in Arabic means No, Nothing, Nil. The word lawyer is also pronounced absolutely correctly *Lie-ye*. So you have *La* and *Lie-yers*. And I have nothing to do with *La* and *Lie-yers*. Technically not that I have studied Iqbal but I have read Allama Iqbal's translations by Arberry in which he says that the strength of the West comes from Science and Technology but you don't get it by wearing European clothes. You get it by having an open mind and a flexible intellect and there is a discipline to that and when there was discipline if you go back to the polymaths of olden times, Ibn Rush (Averros), Al Muravides, Ibn e Sina (Avicenna), Ar Razi (Rhazes) Khayyam, Al Beruni, Al Kindi, Al Mutamid of Seville, going back to 900 AD, they had disciplined themselves and they followed a methodology and that methodology was all from for a thousand years from Spain to Iran was written in Arabic by Jews, Muslims, Christians, Pagans. The lingua franca was Arabic. Muslim innovations and inventions were in Algebra, Trigonometry, Chemistry, Physics, Astronomy, Medicine, Anatomy, Pharmacy, Logic, Ethics, Metaphysics, Geography, Political discipline, Physiology, Poetry, Grammar,

Law, Jurisprudence, Theology, Irrigation systems, Architecture, Textiles, iron and steel products, earthenware, leather, paper, gunpowder, advancement of commerce and maintenance of merchant marine in Baghdad, Abbasids, Cordoba, Seville, Toledo, Granada, Almeria, Valencia and Cadiz. By 1300 AD, all this knowledge had been translated into Hebrew and Latin.

In closing, I may mention that the meaning used of various English words need to be carefully expressed, e.g. religion and secularity mean different things to different people. Consider "Honesty is the Best Policy"; honesty in Islam is not a policy but is the correct language. However, sometimes you have to be tactful. "Hurl the truth against what is false; falsehood can't bring anything new nor take away from what's occurred". Holy Quran 21:18

Consider the other English expression *Cleanliness is next to Godliness* – to our way of thinking it is Godliness itself. Remember, morality always, without exception, has the last laugh. Look at how Empires have perished through deception. In 1986, Professor Abdus Salam in a lecture said "None of our governments have made it a national goal to acquire self reliance – vision for advanced technology and we have paid scant need to the scientific basis of technology".

Over the years the institution of Administrative Courts in France has increasingly commanded respect and is a strong protector of the rights of citizens where administrative arrogance is displayed. Such courts like the *Muzalim* Courts are not handicapped by any jurisdictional or procedural niceties.

A new beginning has to be made if Pakistan is to ever have an efficient bureaucracy that can be held accountable. This is the best guarantee that the country can afford to give because authority on the one hand and accountability on the other are two sides of the same coin. Delegation becomes meaningful as it will not



amount to abdication resulting in meaningful decentralisation, empowering those at their own level of responsibility by providing matching authority.

The judiciary needs to understand economics. Our law makers have to recognise that technology both micro and macro is very complex. The West does!



Handwritten musical notation on a five-line staff. The notation includes various notes, rests, and bar lines. Below the staff, there is a line of handwritten text in a cursive script, which appears to be a vocal line. The text is written in a dark ink on aged, slightly yellowed paper.

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curgo

EXPERIENCES OF 1947 ONWARDS: INTERTWINED WITH THE CHANGING POLITICAL SCENARIO

In 1946 late summer onwards I was in Bhopal for a while with an uncle H M Hayat who was the Private secretary to the Nawab of Bhopal, and from there I went to stay with my uncle Saadat Hasan for three months because I had an introduction to Dr K A Hamied who founded CIPLA which is now a large pharmaceutical firm making many drugs exporting a lot from India. We were for a few months we were in Bombay and we stayed at 29 or 342 Cuff Parade in Colaba and K A Hamied who was from Aligarh lived further down the road. He was married to a Polish lady Luba.

With that introduction, I stayed with Saadat *Chacha* (uncle) in his apartment on Clare Road near Bikala which is near Khilafat House.



Saadat Hasan Manto

I used to walk to their factory which was a 10-15 minute walk away from the flat on Clare Road and I would observe their processing of various items they were manufacturing. I remember one of them was I think was shark oil. I used to be cautioned each time when I was walking to be careful in

case you get mugged but nothing happened to me for the three months I was there.

I came back from Bombay in one piece to Lahore and the episode of the passport has been mentioned because I got an introduction to the financial Commissioner Mr Akhtar Hussain who was an ICS CSP officer who spoke to whomever he had to and within a weeks' time I got my passport. In the meantime I was trying to get admission to one of several educational institutions in the States and got into the Case School of Applied Sciences. By the time I got there a few months later it had become Case Institute of Technology and a few years ago it amalgamated with Western Reserve the medical institution adjacent to it and is now known as Case Western Reserve University on Euclid Avenue in Cleveland Ohio. A small institute compared to some of the huge ones in America but it is one of the better known. So I got my admission there in Fall 1947 and I had time in my hand busy putting my notes together. I had also visited Amritsar where our ancestral property was. My forebears had migrated from Lahore to Amritsar.

Most of them went in for practising law. In fact the name and address where our houses were Koochan Vakeelan, or Koochan Mian Asadullah Vakeelan of Katra Jaimal Singh very near Hal Bazaar in Amritsar itself. Our relatives were living there and as time progressed it became pretty clear that matters were getting hotter and hotter in all ways and so some of our relatives moved out to from outside Amritsar city to the open side which was comparatively safer. Because stabbings were taking place by one community with another and the politicians were responsible for this; the people didn't want anything to do with this. Later on what happened we know entirely blameable on the politicians.

Came March, towards the end of March, Khizar Hayat Tiwana resigned and the political pressures on the Unionist party were such that because of election held by Muslim League guided by

Jinnah, he got majorities in the Centres. Out of the thirty seats, in the Centre the Muslim League captured twenty nine. They missed out on one. This led to a number of things happening from our house on Birdwood Road in Lahore, which was double storied so we could get onto the roof and look towards the city and at times we could see dark clouds of smoke rising. Either one community was burning the property of another or vice versa. This was happening on a daily basis within the walled city itself. The population of Lahore at that time was not nearly as much as it is today so it is difficult to see where our house is today wide open agricultural spaces. Khizar Hayat Tiwana resigned on 29th March 1947 and one result of that resignation was that our houses in Amritsar were burnt down on the 30th March 1947. It was announced and hearing it on BBC that some houses in Katra Jaimal Singh were burnt down and we checked up later and found that our houses were on the borderline of the Muslim and Hindu Sikh population. That's what happened. A month and a half later, I visited Amritsar and went round our burnt houses and salvaged a few things that I brought back to Lahore which indicates that matters had cooled down otherwise how could I have made it to Koochan Mian Asadullah Vakeelan.

As a matter of interest although this has little to do with Partition, near our place at Karmo Deory you got the some of the best *bakarkhanis* (flaky bread) in India. Some Kashmiri out there was making them and later he relocated to Gawalmandi near Gandha Engine, Lahore. His name was Mustapha and as long as he was alive, the quality was sustained. But as usual from father to son the Hakim approach or from *mistri* to *mistri* in mysterious ways. In Lahore in my opinion you can't get good *bakarkhanis*. In the same way there was one Shahabuddin who made very good *Kheer Rabri* and all the rest of it. So I salvaged the things and brought them back to Lahore and many relatives of ours were living outside the walled city they came away sometime in August 1947. That is when things got things got really bad again. They weren't very far away from the railway station. My father's elder

brother my Taiya were living opposite the General Post Office of Amritsar and there was a cinema called Rialto exactly opposite it. They owned a lot of the land and property there. There was the Amritsar Hotel also. From there to the station it was hardly half a mile. So many of our relatives made it to the station and got into the train and they were fired at and a few of them got pellets that penetrated their skin but none of them lost their life but it was quite a scare. They came to Lahore and initially stayed with us on Birdwood Road and distributed themselves among their relatives in Lahore.

Comment on when an Islamic Republic of Pakistan was declared

Because of Chaudhry Muhammad Ali's prompting, and it was wrong, was declared Islamic Republic of Pakistan. But two things



King Ibn Al Saud flanked by Governor General Ghulam Muhammad and Dr Khalfia Abdul Hakim at an Umrah visit

happened. The first is Objectives Resolution was not part of the Constitution. It had references to Islam. And brought into our constitution by Zia ul Haq later. At that time when the Family Law Ordinance came into being in which Sir Abdur Rashid was the Chief Justice and Chairman to that Committee and the Secretary to that Committee was my father in law Dr Khalifa Abdul Hakim. The dissenting note was given by Ehtisham ul Haq Thanvi, a bearded lumberjack. So that is where things started going wrong and you will find things going wrong and you will find in history wherever bearded lumberjacks have come in, in any religion, that they have had trouble.

In the time leading upto Khizar Hayat's resignation the Cabinet Mission had come and the Congress had agreed to the terms and conditions and the Nehru went back on them which led to so many people losing their lives and a huge migration to India and to Pakistan which was unfortunate. But for this only Nehru can take responsibility. Certainly not Vallabhai Patel nor Raja Ghopalachariyya. They may or may not agree with their politics but they were people at least they stood by their words. Nehru was completely unreliable in my opinion. One, he was thinking of being a Kashmiri himself (I am a Manto also a Kashmiri); he was more interested (in my opinion) on holding on to Kashmir. Keeping in view the future voting in the United Provinces now Uttar Pradesh (UP) in India which has a Muslim population of more than that in Pakistan. We haven't had a count here of population it is difficult to tell. But UP has more people than all of West Pakistan put together. To this day UP is the largest province in India and whoever commands the UP has a big advantage in becoming the Prime Minister in India. This is what Nehru was up to.

Post Partition fight for Kashmir, the Dynamics

The general public opinion in those days you can't compare it with what you have today because the way of communicating is very different then and now. We were rather surprised when Jinnah

refused to meet Sheikh Abdullah and went straight over to Nehru. None of us would have realised what it would mean later. We did feel that Jinnah was not quite on the right lines but he had done so many other things correctly so we accepted it. He also made this error in judgement in East Pakistan of language. Whoever advised him, advised him incorrectly. The way people thought is that the tribesmen all who rushed off to Kashmir were indisciplined. They were only interested in robbery and thieving and rape these things. So they were not in a position to get to Batgam airport. At the sunrise of 26th October 1947, the Maharaja of Kashmir took off for Jammu with his entourage of motor cars. And the so called legal documents which Nehru claimed sent them on 26th October 1947 gave them the right to send the army out there in Kashmir. But on the 26th October 1947, it is referred to in Alistar Lamb's book in which he's brought it out the Maharaja couldn't have signed it because he was busy rushing to Jammu in a motor car. And to this day the Instrument of Accession has not been exhibited by India. So it was not signed; but anyway Nehru of India then went to the United Nations and they said we could have a referendum but nothing happened nothing worked out because Nehru did not tell the truth. If he had, many other things would have been put right and maybe the whole political scene in South Asia might have been different. But the way Nehru thought it couldn't possibly be.

The violence started and it had got pretty grim. Where was I on the 14th August 1947? I was on the train between Pindi and Lahore. I was with my mother and sister. We were returning from Murree. Normally we used to go to Kashmir Srinagar at a place three quarters of a mile beyond Nasim Bagh in Hazrat Bal on the Dal Lake. It had a funny name called Habak Khuski. My grandfather had built a house there we would be there each summers throughout the summers. We couldn't go there because of problems we are now familiar with. From Murree we came down to Pindi; got into the train and got past various stations. The train did not stop at various platforms. It stopped either

before or after because there were rumours that a lot of killings had taken place. Not that I saw any body actually being killed but I do know on our way three Sikhs boarded our compartment and they all had swords with them. But nothing untoward happened. Its only when we got to Lahore that I mentioned we stopped at a platform (where trains from Amritsar were also stopping) well before Platforms 1 and 2 of Lahore station and I then hunted around to get a taxi from Rs 6 or Rs 10 and it brought us to my mother's house on Birdwood Road.

I didn't tell family what I had seen. There was a lot of blood and cut up bodies lying on Lahore platform. It wasn't a place to remain around so we checked out as quickly as possible. Its only a few days later that I told them what I had seen. In August 1947 I had got admission to Case Western Reserve University in the USA. In September so I had then went down to Karachi. Again in Karachi we had to lock ourselves in the railway compartment otherwise it would have been impossible; they were flocking in, they were on the roofs of the train. They stopped at various places each place some people would get off be greeted by some villagers out there to take care of the refugees coming from India. This happened by the time we got to Multan most of these refugees had dissipated. So from Multan onwards it was a clear journey by Frontier Mail or whatever I forget; going down to Karachi.

I got to my uncle Hamid Ghani, who was looking after the NWR workshops there. My grandfather was there who had built this house at Habak Khushki where we used to go each summer in Srinagar and after a few days I was able to board the Pan American plane to New York. I will mention here that I never heard in Murree or Pindi or Lahore or Karachi the slogan *Pakistan Ka Matlab Kiya laillha illallah*. That slogan came much later. The slogan at that time of Partition was *Pakistan* and people would then say *Ley Kr or Ley Ke Rehaen Gay* and everybody shouted *Pakistan* (we will realise Pakistan).

So moving away, the Partition process was not based on religions. It was based on lack of opportunities to advance themselves in all fields including education. That I have mentioned earlier what happened to me in the education field. The same thing happened in industry banking in commerce. Muslims would buy things from Muslim shops and other communities from other communities. For instance in Lahore in Anarkali there was Bombay Cloth House and Inayatullahs so Muslims would buy their stuff from them so this was the kind of thinking the people had in those days encouraged by the politicians. Politicians did not speak straight and a tremendous amount of hypocrisy even, more so today in Pakistan

First Martial Law late 1950s onwards and its Long Term Effects

The constituent Assembly took so long to frame the Constitution and people were getting fed up of the antics of politicians and generally there was tremendous amount of dissatisfaction overall to the best of my knowledge. At that time I was located in Hyderabad Sind. I was running (with a colleague of mine) Imtiaz Mehdi an organisation called Sind Oil Mills, the Hyderabad Sind Vegetable Oils and Allied Industries Ltd., and affiliated at that time was the Treet Safety Razor Corporation and a ginnery of 15000 bales in Sanghar. Between the two of us we were running this and the number of employees had been reduced from 1700 to 1200 so it was a sizeable unit in any case anywhere.

This general dissatisfaction was in all spheres and when Martial Law was declared we didn't know what it meant; in a way it was no surprise but getting to know what it meant was surprising to many of us. We were not aware of what it may lead to or wherefore it would lead to. In 1959, Martial Law was declared and generally it was welcome by everyone except those who got hit hard by it. The next day at any rate when one walked through the bazaars one saw different coloured powders thrown into the drains and in at some places even some bag full of currency notes were found. We later

found out that the coloured powders were adulterated spices; could be turmeric or anything. The people when they got to know a little bit about it were genuinely afraid of what might happen. Also in view of the appointment of various Martial Law Administrators (MLA) in the various areas. The MLA in charge in our area who later on became the Chief of our Army, he was Brigadier Tikka Khan at that time. He sent for all of us and as we were running industry and he had a list, so we went there and he gave us a lecture as to what it was all about and we better cooperate with them. He spoke in a way it appeared he meant business. In fact they did mean business because they really did have the support generally of the people of the country who were fed up. Later on they fed on that and it led to over a period of time further Martial Laws and people developing an immunity to Martial Law itself.

But since we were running industries and paying our taxes properly we had to cooperate with others who were running their industries not necessarily in on above board fashion. That was a principal difficulty that I had to explain to Brigadier Tikka Khan at that time that how is it that we can cooperate with them when this has been the position and of course he had no reply to that and in typical military style he said you have to look at ways and means and work it out. So there was general acceptance at that time in Hyderabad Sind to the extent that people voluntarily got rid of a number of things including currency notes that had not happened before in Pakistan. But over a period of time as the army office and others became more familiar with the public as they had very little public dealings in the past they also succumbed to practices which were not necessarily above board.

There was cooperation between various departments in different ways and that cooperation also extended politically. The Military means the Army, Navy and Air Force and they basically have a common culture resting on the word discipline therefore they had a common language to speak. They were trained to be managers of war and not managers of peace and as managers of war their

experience came in war and war alone itself. In hostilities. But in peace times they were always preparing for the next engagement. Now when an officer or those who are trained as managers of war come onto the civil side and try to act as managers of peace and where you have conflicting cultures in various aspects of civil life the culture i.e. the culture in education is different than that in law and order is different from that in industry and commerce which is different from that of the social services and you have a culture in health and so on. Many times they are contradictory and this aspect is something that the military had also not anticipated the result of that is that many decisions that they made were made on a base of ignorance.

In as much if I had been made a manager of war, the next day I most probably I would have made a mess of it myself. So over a period of time, the Army had to look round for support and because their experience in peace time was always inadequate they also had to look for support within the country and because they were not reformers and as I learnt later with my discussions with General Jilani, who was later the Governor of the Punjab in the 1980s. I also had discussions earlier with the Governor of West Pakistan, Lt. General Atiq ur Rehman and others I had met later some were on active service and some had retired - both two and three star Generals - they all had to say that they are not reformers. So if one is operating in a certain way you have to reform something in some way and that thinking is something entirely new to the military. So one could not expect them to do things properly until they had plenty of experience on the civil side which would have meant taking away the sharpness on the war side because their objectives or their training is not for peace but for war. Anyway, they therefore found allies in those who preferred to retain the status quo and the status quo anywhere in the world are the Rightists. So they made their alliances with those who were for the status quo because that had to further their ends. So to bring about change and that is what Martial Law was about at any rate at that time did not happen.

I remember personally in my case I was paying on demand income tax at 5 annas in the Rupee. This is going back to the 1950s. Then in order to whiten black money because there were strict controls on foreign exchange flows in and out of the country the Martial Law regime decided in their wisdom to whiten money to anyone who was willing to pay 4 annas in the Rupee. Well those who had honestly paid a higher rate were wondering what that was all about. But even that approach did not succeed because there was a lack of trust and you can only build up trust over a period of time depending on the track record you produce within that period of time itself.

So things went on and the bureaucracy, that was one of the three pillars at that time (the Judiciary, the Executive and the Legislature); our media had really not come into its own as it did in the last ten years or so.

The Executive cooperated as well as the religious groups who both wanted to retain the status quo with the Martial Law regime. And things went on and then the Field Marshal from a four star General he became a Field Marshal - he produced a book called *Friends Not Masters* and that was about a decade of their performance in which they had genuinely tried to produce local body governance in other words to try and delegate authority to local bodies to try and take care of things in their area.

I think Manzoor Qadir, a very good lawyer barrister in his own right, was the one who tried to put it all together in what was called Basic Democracies at that time in which the Union Councils there were 40,000 in West Pakistan and 40,000 in East Pakistan and the mistake they made at that time was to make these 80,000 or so an electoral college out of these individuals for election of a President under a Presidential system. Well what happened later was that it was easier to influence 80,000 people than the total population of East and West Pakistan at that time and Fatima Jinnah was the opponent and just as we talk of *dhandli* or rigging nowadays they

talked of *jhurloo* or so in those days supervened. The general public felt that while Fatima Jinnah got more votes somehow those votes evaporated and the Field Marshal won the elections and became the Chief Executive Officer of the country.

1950s Promulgation of Urdu as a National Language and the Promulgation One Unit: Centralisation and Effective Decentralisation Through Standard Operating Procedures; Comment on PIA its inauguration: Technology and Maintenance

I was for Urdu, even though my first language was Swahili. It is known that if you know your own language then you can understand concepts more easily and understanding concepts is more important than anything else. That is the strategy; the tactics details fit in later. My wife Rafia Hasan's thesis for her doctorate at UCL, London University in 1964 was on bilingualism and she had done her research work in Hyderabad Sind and from there it was pretty clear that the English medium and the local medium even though the IQs were about the same, the output of those who were being taught in the language they were being taught in were better than those who were not familiar with the language they were being taught in. Politically, we failed because the bureaucracy obstructed this. All the files were in English and I don't think they have the intention even now even though the current Chief Justice Jawad Khawaja says everything should be in Urdu which is correct. To have everything in Urdu particularly in the education sphere we need a translation bureau which I believe we have. But we don't know much about it.

In fact we should have studied, the Osmania University model in Hyderabad Deccan. About a hundred years ago they were doing all their teaching of instruction their higher learning in Urdu. Raziuddin Siddiqi a Physicist, taught Mathematics and Physics in Urdu. Anwar Iqbal Qureshi, who was later with the World Bank and later financial advisor to Ibn Al Saud in Saudi Arabia,



*Dr Khalifa Abdul Hakim
and Khadija with nanny
Monica and son Arif,
Heidelberg Germany 1923*



*Dr Khalifa Abdul Hakim and
Khadija with daughter Rafia
and son Arif Hakim*



*My grandfather Maulvi
Abdul Ghami, a High Court
Judge, 1865-1949*



*Masood and Dr Rafia Hasan with their daughters
Nada (L) and Dr Naveed Hasan (R)*

was teaching in Economics in Urdu. Muzaffaruddin Qureshi who later was Director of Industries here in West Pakistan was teaching Chemistry in Urdu. My wife's father Dr Khalifa Abdul Hakim, translated various books; one by William James and others into Urdu. He was teaching philosophy in Urdu. All the other subjects and they had an effective translation bureau with a subject matter specialist person with knowledge of Urdu and English and they would sit down and where technical terms had to be translated they did it. You take the English language today; who says half of it isn't influenced from other languages, it is only the other day they put Gullu Butt which is now an English word in the Oxford dictionary.

Public reaction meant little but it did mean a lot to those involved in getting their problems solved. The centre for solving problems became Lahore not Karachi not Quetta, everything was centralised here. Because the bureaucracy didn't realise what such centralisation of authority meant. It arises what I call out of administrative arrogance; to hell with the people, I am here to rule what I say goes. Okay what you say goes. If someone has to come from Kalat to or from Dir to get his problem solved and he is told the officer is on leave what does the poor fellow do. He just curses everyone and goes back and that is precisely what happened. In my opinion One Unit did not fail politically it failed administratively. If only they had understood what centralisation means. Centralisation is one of the two sides of the same coin. You have centralisation on the one hand and decentralisation on the other. You then are in a position to delegate if you decentralise but out here because you do not have Standard Operating Procedures (SOP) they can't delegate, they only abdicate. Because when you give powers to someone below you then you never know how or what is going to happen because you have no system. There's no definition how work should flow and work has to flow in predictable channels and that can do if personnel involved in day to day planning can understand what the channels are. They could only understand what the channels are if you have it written

down and go into a lot of detail. Like what you call going into binary. Like the fully loaded exploded mechanical engineering drawing that you can't explode any further. Like in a passport; are you male or female that is binary, you can't explode it any more. You then follow the particular channel that too is a lot of system donkey work nobody wants to do it.

I mentioned, you start off with a vision like Allama Iqbal did, who was encouraged by Sir Syed, who was encouraged by Rumi. He had a vision of Pakistan and his mission was taken over by Jinnah, then his lieutenants went in to define its goals and objectives and from these goals and objectives which are a stage lower than the previous you then work out your strategies which I define as your allocation of resources. Your allocation of resources makes it possible for you to start the physical work because your goals and objectives are intellectual activities they are not physical implementation. Unfortunately since you do not have Standard Operating Procedures which are up to date on the civil side there is a void between your strategies and system implementation. Procedures implementation at the ground level. Unless this the slough of despot, you can define things in this box, a junior official can tell you anything. He will fix anything in no time, be it a no ball or a wide. As a citizen you can't tell him you are wrong because he is the one who has the authority. And your senior officers are not prepared to do the system donkey work the SOP that are defined. And to keep the system up to date you need a budget.

I don't think any government department here in Pakistan which is operating in its own way has up to date SOPs. They don't have them. They can only have them if you have, and I don't think they have, a dedicated budget head which permits you to spend money to get it down and you need to have dedicated personnel to keep it up to date that staff work or service work is something that is done much more efficiently in the Armed forces. That is why if you have trouble in any place and to send an officer from the Corp or Division, you keep shifting them around he is in a position

to start delivering the day he arrives there. Here the culture of law and order is different from that of education, is different to that of social welfare, is different to that of health, and many are sometimes they are in opposition to each other. It is unfortunate. The first priority is to get the civil departments working more predictably is for them to define their SOPs (you will be surprised at the results!) In the final analysis it will introduce equity/morality or *Istehsan* in our administrative accountability system. Judicial accountability has failed miserably and Islam believes in transparency. Where is it?

We are not willing to accept coordination as an economic factor like labour, like capital etc. which you can't sustain any effort. They are putting up many things in Lahore; it goes up and after fifteen to twenty years it is in ruins because you can't sustain the effort; because you have not worked out future systems; because you have not defined your SOPs; because you have not done; because the senior officers are not prepared to dirty themselves with the donkey work that needs to be done, so that ultimately you can hold the individual accountable for doing or not doing as the case maybe.

With all the corruption in the country it is the *Naiib Qasid* or the person at the lower level that gets it in the neck. All your senior politicians today you all have cases against them who have been taken care of from an administrative accountability point of view. You can only see how it hardly ever happens. It is only now (2015) that the army has given the civil side a kick in the back side that they have woken up that if they don't do anything maybe there will be Martial Law tomorrow. Although that won't be but they are afraid it will.

I was reading recently in the newspaper that our retiring Chief Justice (in 2015) said that the judicial system needs an overhaul. I don't think anything needs reform as such; over hauling it yes maybe but we do need to understand the difference between

the mechanical and the organics. The mechanics side gives you how you transmit force through a system, how you transmit orders through a system but the organics tells you how the work flows. But the work does not flow vertically. It tends to flow from accounts to purchase, to inventory to stores, and so on and so forth, and each one has its own discipline. And these are dependent on your SOP so unless you get them going you cannot have accountability. Finally you have to be able to prove a person is accountable. Out here we ignore our Islamic system.

Independence of the Executive is required. The taking on of 6000 *Suo moto* cases by the Supreme Court to provide justice/*insaaf* without having the resources i.e personnel and budget to investigate led to a complete breakdown of almost everything in the country. It is always good to distinguish between symptoms and disease. We do not. When there exists judicial review of executive decisions, the Executive is quite happy. This answers due legal process and formal application of requirements of a court of law on evidence. Most of the times the evidence is spirited away and the body is not found the crime was not committed. Add on stay orders and understand justice/*insaaf* delayed is the same as denied. Corrupt individuals cover up their tracks this makes courts of law ineffective. Indirect taxation also favours corruption. Delays in due process suits the feudals with holding capacity and erodes merit. Righting what is wrong would be to put accountability of the executive/administrator within the executive by setting up *Muzalim* (Complaint Courts) courts on Islamic pattern and adopted by Napoleon which we have rejected by sticking to the Anglo Saxon methodology.

But over ten years, the Field Marshal's family had moved into commerce and industry and then into politics particularly in Karachi where there had been quite a large number of exodus from the NWFP (now Khyber Pakhtunkhwa province), at that time to Karachi, and there was a goodly number of Pathan votes in that area. The ruling family at that time came from Haripur

Hazara that is part of KPK province (former NWFP) now. They started doing things in a way that led to opposition and people were getting fed up as to what was going on. An incident took place in Rawalpindi at a polytechnic; about seven or eight miles out on the Peshawar Road from Pindi itself. Sheikh Rashid keeps talking about the same thing that he was a student leader at that time and he was put behind bars.

But the immediate cause of the problem at that time was raising the price of sugar by a few annas a *seer*; we hadn't got into the metrics of the kilos at that time and one thing led to another and then political parties disassociated from the ruling side and got together and ultimately had the Field Marshal was kicked out. Also, the higher per capita income does not mean a decline in poverty, in fact in the absence of effective wealth redistribution systems it will continue to move in the same direction i.e. more poverty leading to the stage where something gives. We need to pay heed to this. Also negotiations openings lead to corrupt practices, i.e arriving at deals.

There is no doubt the Field Marshal had done a lot for the country but when you do a lot for the country and you sow the seeds for moving in the other direction then one has to ask oneself the question that was it all worth it. Of course there can be more than one opinion on it but my own view is that its not worth it because you prevent the civil side from learning from making their own mistakes at the lower level to be able to make decisions at a higher level; to look at planning and to look ten, fifteen or twenty years ahead for the future of the country. Anyway that unfortunately did not happen and no doubt the Field Marshal himself had a goodly measure of self respect and said that he had had enough. I think the turning point for him was when they put a dog in a chair and put garlands on a chair and at that stage he said that he can't take it.

At that time the Chairman of the Assembly or Senate should have automatically taken over as President but no that did not happen

and internally it was worked out and General Yahya took over. That take over was unfortunate; it had not reverted the matter to the civil side; just like the Maulvi Tamizuddin case that was heard in Karachi to begin with where the High Court gave one decision in favour of Tamizuddin but it was upset by Chief Justice Munir later. In his book *From Jinnah to Zia* he admits the error he made in introducing the Doctrine of Necessity.

My late father Said Hasan, was acting Vice Principal of the Law College before I was born in the early 1920s; at that time Munir was a student of his but my father never taught him the Doctrine of Necessity. But the Doctrine of Necessity led him to being there for so long; the take over by Yahya then what was happening in East Pakistan, their dissatisfaction, their jute earnings and the cotton exports on this (West Pakistan) side and the way the higher bureaucracy dealt with our Bengali brothers in East Pakistan. I am told I haven't seen it myself they were downright contemptuous of them as well as outright throwing the files away in their presence. So that led to problems which was added on to the two big mistakes that I believe Jinnah made. One is when he refused to see Sheikh Abdullah who then went to Nehru which then led to what happened in Kashmir that we knew later. The other one was his view on Urdu. You can't force anything on anyone over a period of time particularly where it involves culture. And culture is not religion. They are two totally different things and culture of East Pakistan was reflected in their literature as well as in their history.

Their history as being anti-government and producing terrorists is the first in the whole of India at that time. So they were in a belligerent mood out there; cases were framed like in which the person who became their President Shiekh Mujib ur Rehman was jailed in West Pakistan and was later released when Bhutto came in. He was in Chakwal jail, President Mujib ur Rehman; there was a case against him in East Pakistan so he was shunted off there and Bhutto at that time had other things in his mind. But what it meant was that Yahya Khan inherited Bhutto as his foreign

expert advisor and became a Minister and he had then had his own programme which unfolded.

Comment on PIA - its inauguration: Technology and Maintenance

At one time PIA was one of the best airlines in the world it had a very high standard because they had SOPs borrowed from the Air Force. Asghar Khan was the first one who did it but the person who really got it going was Nur Khan. Because I remember in 1969 writing an article on large organisations and the Systems Approach. There was a phone call from Air Headquarters from Peshawar. The Commander in Chief at that time, he wasn't Chief of Air Staff he was Commander in Chief of the Air Force just like you had Commanders in Chief of the Navy and the Army. I got a call where he said that the Commander in Chief would like to speak to you. I said I hadn't met him he didn't know me. He had read something and he wanted to find out more know more. He telephoned me so I said I can come up and give a presentation. So I went up and gave the presentation; the outcome isn't important but the process is important.

He had an open mind he was willing to listen. Accepting or modifying it came later. But unless you have that you cannot run any organisational system properly. Technology and my definition of technology is very simple; it is the know how to solve problems all sorts in man made systems. Now PIA is a man made system. What are the requirements of technology? You have to appreciate merit you have to have everything down in tremendous detail. For instance a 12.7 machine gun will require a truck load of engineering drawings. People don't realise it. I mean the hard copy of the engineering drawings of one aircraft would weigh tonnes and tonnes. So merit and attention to detail and the devil always lies in the detail and that is how technology always develops. Not science necessarily because I am not a scientist; I claim to be a technologist. If you are in a position to have up to date SOPs up to date road maps of how your paper work flows. Because your

paper gives you the authority to do or not to do things and the level at which things have to be approved depends on how large the sum of money involved is or some other measure but then you look at the hierarchy where you have your mechanics of it; the power coming through the system. Out here the organics are very important; the detail is all important. If merit is there then you have to have means to assess merit. For that your accountability system has to change out here because our accountability system has failed. It maybe the best in all the other countries of the world but it hasn't worked here. So we need to rethink that process. Our outgoing Chief Justice, in 2015, says our judicial system needs to be revamped. I don't think that it does. I think something needs to be revamped out here in our heads. We need to look at our post experience training programmes and many other things but that goes into a lot of detail. Unless we make a change in our administrative accountability nothing will work. Technology applications mean change and change is a permanent feature in this world of ours we have to learn to accept Allama Iqbal's judgement of the West's superiority in international politics.

Ex post facto, accountability is very good but how does it help to improve the internal administration? It ends up with personal (well merited) punishment but improving administrative systems calls for improving the aggregate, the ways and means for doing so are preventive not penal. Also no mistakes are made when you sleep which is the root of bureaucracy and enemy of evolution! Because that which is static becomes useless in the organic sense. The over trained become muscle bound (being cool/calm/collected all the time), so must alternate.

PIA was established when you had Orient Airways and another one they amalgamated and PIA was set up as a government financed organisations. Those that were in the private sector had one or two crashes and at that time and many people of note had lost their lives from the Army as well as the private sector. So PIA came up at that time and Asghar Khan's beginning it,

then Nur Khan taking it over and doing what he did the way he did it. The fact is it worked. You could say the interference was less because people didn't realise what this technology meant. Now they have seen that out of technology they can make a lot of money the wrong way so they have bent all the laws and the organics that haven't been defined to help them to skim off what hasn't been defined. But the result of doing things the right way I think for some time PIA had the best international punctuality internationally and other things. This is particularly reflected in maintenance. Where you have to look at everything.

The space shuttle Challenger that went up in the air exploded and some astronauts were killed. You know what it turned out to be? The O rings or the washers they got brittle at that low temperature and they didn't seal so it exploded. Now that is a detail; now how do you define the elasticity of the rubbery material at -200 degrees centigrade and then you have to be able to test it and when the shuttle comes to rest it assumes environmental temperature. Then it goes up again. How many cycles? Now this requires a lot of hard detailed work and we avoid detail because detail physically inconveniences the individual. We want things the easy way out. There is no easy way in technology. Absolutely not, certainly not. So in my opinion their attention to detail is brought out. More so in an aeroplane if anything goes wrong at 10,000 feet in the air, you crash. In the Army if the tank stops you just get out of the tank. You are on land and you are still alive. The Navy is in between in a way; you have life boats but if the sea is rough it's not that simple either. To me it is very clear out here that understanding the dictates of technology is the secret to success.

Allama Iqbal has written this in his *Javed Nama*. That the strength of the West comes from science and technology, not by wearing European clothes. If you have a flexible intellect. If you have a nimble open mind you don't need anything else. So there's no flexibility or nimbleness in thought here as long as the outside is painted well. You may have a cake and pastry finish outside,

although the sponge inside maybe terrible. You think everything is alright; it isn't.

There's no word in Urdu for 'maintenance.' And a language that cannot recognise a concept with a word will never understand the physical activity it generates. Now you have to have the disciplines of breakdown maintenance, routine maintenance and operatable maintenance, and I asked Raziuddin what is the word in Urdu for maintenance. Raziuddin Siddiqi said Masood Mian *mein bataon ga Arabi mein zaroor hoye ga* (I will tell you, there must have a word in Arabic) who talked in Urdu. Poor fellow he died before he could tell me so I haven't still found out.

At one time in hockey, snooker, yachting and cricket we were tops internationally and look at us now. And why are we there now. Politics has come in.



Myself and Rafia at home in Shah Jamal January 2020

APPENDIX

"There is always a future to a present just as there is always a present to a past i.e. there is continuity in the flow of time. Interventions upset the processes. More so if the processes are moving continuously and according to a plan which has been worked out with great effort before making a beginning". Ibn Khuldun.

THREE CAREFULLY CHOSEN ARTICLES BY MASOOD HASAN BASED ON HIS RECOMMENDATIONS AND PRACTICAL SUCCESSFUL EXPERIENCE. AFTER ALL GOOD PRACTICE DOES PRODUCE GOOD THEORY:

- 1. THE SYSTEMS APPROACH TO ADMINISTRATIVE MODERNIZATION**
- 2. WHY GOOD GOVERNANCE ELUDES US AND**
- 3. MESSING IN PAKISTAN**

THE SYSTEMS APPROACH TO ADMINISTRATIVE MODERNISATION¹

by Masood Hasan

Is administrative modernization necessary at all? Since change is inevitable and we cannot cry halt to it, it is important for us to be flexible enough to adapt to the altering environment. As such institutions involved in organized activity, be they public or private, commercial or industrial, service or contracting in nature, must be aware of what is going on in and around them so as to be prepared to objectively evaluate fresh developments. *The systems approach is analytical in nature and involves viewing organizations at different levels, the overview, the ground view, the intermediate view(s), and equally important, being able to relate the information gleaned at each level of the organization so as to ensure that there is no conflict in interpreting what is seen from each point of view. This approach ensures that the objectives of an organization are being best attained by reducing as far as is humanly possible inter-functional rivalries and, conflict, which as we are very well aware, is the cause of so many of our administrative ills today.*

Ever since World War II we hear more and more of the word "system". The larger the scale of any organized effort the more we hear of it as a sub-sub-system, sub-system, etc. This world has come to the fore with the vastly increased size of organizations; public or private, commercial or industrial, administrative or service. The Oxford Dictionary defines this word as "complex whole, set of connected thing or parts, organized body of material

¹ Copied from Pakistan Administrative Staff College Quarterly Lahore. Vol VI
Sep-Dec 1968 Nos 3-4 pp 77-91

or immaterial things". We know of so many systems, be they static or dynamic, deterministic or probabilistic in nature. Consider the following systems: government, political, transportation, communication, education, procurement, costing, power generation, power distribution, irrigation, drainage and so on.

If we look at the short list given above we observe some of the smaller systems fitting into the large. Again considering ourselves as individuals we can go up the scale somewhat as follows: groups, communities, nations, world, solar system, galactic, universe. We can go down the scale from organs to cells, virus, molecules, atoms, nuclei, fundamental particles. We are, therefore, able to discern the hierarchical nature of systems. The higher the system the more complicated its set of goals becomes. But it must be very clearly understood that when we talk of administrative systems, progress in reaching higher levels depends upon the adequate performance of the lesser systems. It must be equally clearly understood that the mere efficient functioning of an individual lesser system by itself is no guarantee that progress will be achieved by the system as a whole.

This necessitates the overview, that is, looking at a given situation at different levels. In Canada it was recently found that taking colour photographs at 4500-9000 ft. height from a cruising aircraft of bean fields revealed certain patterns that could not be observed walking through the field at ground level. The aircraft photographs showed scientists certain blight-infection patterns which were impossible to miss. Walking through a field there was no guarantee of stumbling across the disease. If the same terrain were photographed at 80,000-90,000 ft. a different pattern of information, useful to another expert would make itself manifest. A photograph from a satellite would provide a yet newer overview of the same situation. What is important, is the understanding that a view at a certain level provides information peculiar to itself. But if any view can assist in coordinating the others it is the overview of the lot.

The same sort of situation exists when we look into administrative (or commercial) systems. To attempt to improve matters at a particular work centre, cost location or desk may merely shift the bottleneck to another work centre, cost location or desk and in the bargain create more complications than existed before the attempt to improve matters started! In any case it is also pertinent to note that procedures have lives that hardly exceed five years. Further, procedures become more complicated as time goes by: they build upon the efforts of the past.

The conclusion that one is forced to draw is that we must base our attitude towards work on the assumption of change. The fact that we prefer to call an undeveloped country (static thought) such as ours a developing country (dynamic thought) in itself presupposes change.

Change if it is not guided amounts to permitting water uncontrolled to find its own level. Guidance calls for the planning process. Planning if it is to be of any consequence demands systematization of formalization of the management process. This at once leads to the necessity for explicit definition of objectives. The definition of objectives is by no means easy, but it can be assisted by the proper assembly of data, of facts, of information. When we marshal these data, facts, information we are vitally interested in being able to check their degree of correctness or validity and that too in a reasonable period of time. It is not easy to meaningfully cross check on account of the ad hoc fashion in which the information networks of large organizations have grown up. No one budgeted for quick expansion of the organization hence no one ever thought of planning the paper work.

At this stage it is relevant to indicate how or why this has all come about. Up till 1700 the philosopher was the custodian of all scientific knowledge. However, on account of the increasing store of such knowledge which he could not cope with he gave way to the natural philosopher, who as his scientific successor-

in-interest held the baton till 1850. At about this time the Universities split up into the Arts and the Sciences. The natural scientist was born. With this split in academic knowledge seeking the superiority of the scientific method was very quickly made apparent. Progress in physics, in chemistry, in biology, went on at an exponential rate and this is true to this very day. Around 1900 the social sciences, psychology, sociology, anthropology, started to command attention. This continued splitting of disciplines in academic knowledge seeking proceeds apace. This is also tacit admission that the human mind finds itself incapable of functioning efficiently unless it breaks a problem down to size, so that we can "manage" it.

An analogous development took place in the application of the results of scientific research. New idea conceived in the laboratory made for technological progress and organizations grew in size so much so that we have today econometricians, engineers of dozens of different kinds, industrial, psychologists, ergonomists, methods time measurement specialists, short interval schedulers, statistical quality controllers, etc., looking after numerous functions such as purchasing, marketing production, maintenance, cost accounts, personnel, public relations, financial accounts, etc.

The problem arising out of this functional fragmentation is that of coordinating a host of varying viewpoints within a large organization so as to ensure that the output is maximized, whatever resource input (human and otherwise) we may choose. We are fortunate that such problems have been faced by large organizations the world over. We are also fortunate that such problems have been solved by those large organizations that have had the courage to hazard a good look at themselves so as to understand what is going on, as condition precedent for streamlining administrative systems. We, in developing countries, should, therefore, investigate the ways and means used successfully by others in dealing with large size, which is synonymous with

complexity. To deal with complexity our work methods for control have to be equally sophisticated to be effective.

It is pertinent, therefore, to examine carefully the management services/sciences which have developed during the last two decades. They are: Work Study (O&M); Systems and Procedures (S&P), Electronic Data Processing (EDP), and Operations Research (OR).

It is true that Work Study goes back before World War II but significant developments in this field have been generated during the last twenty years or so.

The advent of the computer has hastened the management process. Because human beings ask questions and the computer does not, this is where our troubles begin. Further, since the computer has never "seen" an organization chart, nor does it comprehend why a file "refuses to move", this only adds to the confusion. Another difficulty arises out of the over-dramatic presentation of the "idiot" (the computer) because this hides its ways and means of functioning meaningfully behind a lot of tinsel, windows dressing and jargon. This is a very unfortunate situation.

Systems and Procedures is the key in providing a sound basis for the computer to take off from. This statement is restricted to normal administrative/commercial work on organizations where plenty of paper work floats around. As a by-product, Systems and Procedures provides an O&M (Clerical Work Study) team with a full understanding of what is going on in an organization, thus making it possible for an O&M investigation to work effectively. Normally, O&M teams are a frustrated cynical lot, particularly in Pakistan, because they do not have access to the total detailed picture, but more of this later.

What then is the Systems and Procedures approach. It is significant that it is an approach for it helps to remodel one's thinking on

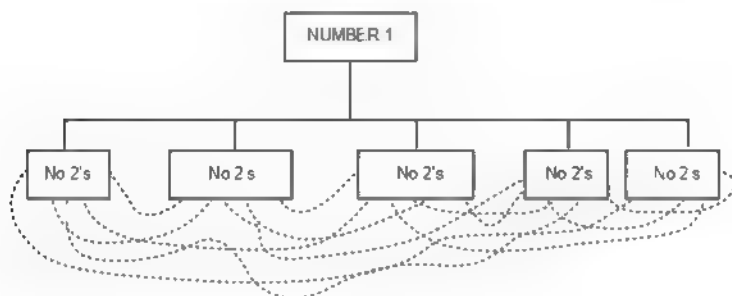
logical lines. It attempts to routinize as much of the work in an organization as possible. Since involvement of management is a *sine qua non* of the success of any type of effort to streamline work flow, Systems and Procedures provides the ways and means of involving personnel at different levels to the extent desirable.

Systems and Procedures is a complete disciplined approach to the task of systems investigations including both management and systems staff. It provides management with an extraordinarily powerful tool for recording and analysis of what is going on in an organization. Because Organizations have grown rapidly without a plan to guide expansion over the years it is wrong to presume that matters can be "put right" merely at the snap of one's fingers within a few weeks. Certain attitudes and traditions have been built up with the best of intentions so it takes time for gentle persuasion to convince individuals to first accept the fact that there might be a better way of doing things and secondly of the specific changes that have to be made.

So many times we come across individuals who having made a study of the structure of their organization come to the conclusion that the organization chart represents the way organization functions. Nothing could be farther from the truth. The organization chart does no more than represent the levels of authority. The addition of job definitions associated with each little square on the chart only confirms who has what authority. The familiar looking chart (Diag 1) below indicates the levels of authority.



However, if we are to find out how work actually flows we must look at not only the formal but informal ways and means of progressing work. If we were to follow the paper work we will have achieved our purpose. For we know that work flows or does not if the paper work associated with it moves or does not move. The modified "organization" chart (Diag 2) below indicates how information flows in the progressing of work.



We observe the lateral or horizontal movement of such information. So if we could determine exactly how such horizontal movements take place we will have been able to understand how work is actually accomplished. If this picture looks untidy, it is so, because the communication network is untidy.

Readers will recall an earlier reference made regarding viewing a system at different levels. It is necessary in a somewhat similar way to view our administrative systems. For purposes of avoiding semantic confusion it is necessary to define exactly or quantify what is meant by the word Procedures and the word System.

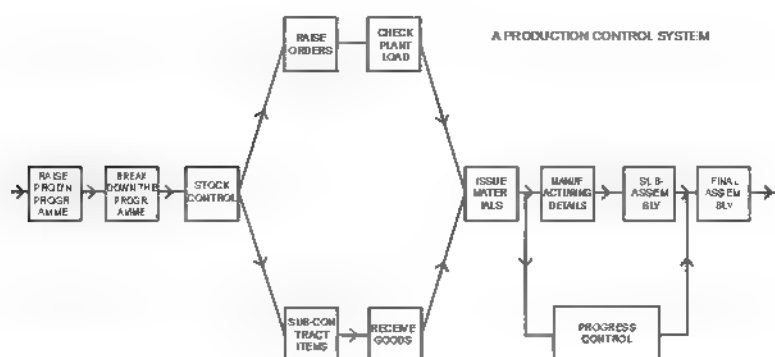
A procedure is "an established clerical routine or series of clerical operations involving one or more persons in one or more departments". An example of a procedure could be: getting stationery issued. An authorized individual would fill in an Issue Note or Requisition (in duplicate or triplicate) entering the cost centre, work station or desk number, the description and number of the items required, the date, etc. This document would then be presented to the Store Keeper who would give it a quick glance to

see that it has been filled in properly, then number it serially, hand it over to his assistant who would go to the bin, pick up the items, strike off a similar number off the perpetual inventory record (also noting, if necessary, whether it has gone below minimum cover) hand over the items and get a receipt for the same. The completed Issue Notes would then be sent to the Ledger clerk the following day and a number of further clerical operations would ensue. Or Take the example of a student wishing to appear in an examination. He would fill in a form in quintuplicate and post it to the authorities concerned. The receipt clerk would remove the documents from the envelope making the requisite entry in the Inward Register and send the papers on to Till ultimately the roll number would be issued to the student advising him to what centre he would have to report for answering the examination papers.

We can think up very many procedures other than the two given above. The reader may have already discerned that looking at matters at the "procedural level" is not getting the overview.

Now let us consider what is a System: "a System is a network of related procedures developed according to an integrated plan for performing a major activity of the business". We can have Marketing Systems, Production Control Systems, Accounting Systems, Purchasing Systems, a Personnel Recruiting System. The most complex are Production, Planning and Control Systems where thousands of different piece parts may be involved encompassing Procurement and Stores on the one hand and Production and Cost Control on the other. In such a system we may have as many as 200-500 documents floating around and there may be as many as 32 copies of one document! If this not represent complexity, what does!

In any case it is pertinent to point out that whether we are considering organizations involved in job orders (manufacturing a ship, putting up an hotel, erecting a dam) or providing a service (transporters, telephones, coordinating agencies with



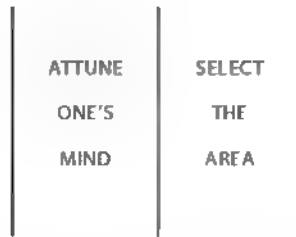
administrative authority) or issuing statements (insurance companies, electric utilities, banks) or the process industries (edible oils, rayon, paper, petroleum manufacturers) the problems experienced for purposes of coordination/control boil down to “what is put down on documents/statements/returns” so as to provide relevant information enabling decisions to be made with an adequate background, as nothing can be so dangerous as decisions based on ignorance. Above is a simple block diagram (No 3) is indicated a Production Control System.

It is self-explanatory. It indicates very broadly an overview of work flow based on the documentation highways traced by the statements/returns/reports enabling each functional specialist (Buyer, Store Keeper, Cost Accountant, Production Engineer, Maintenance Engineer, Financial “Accountant, Salesman) to achieve results in the performance of their work.

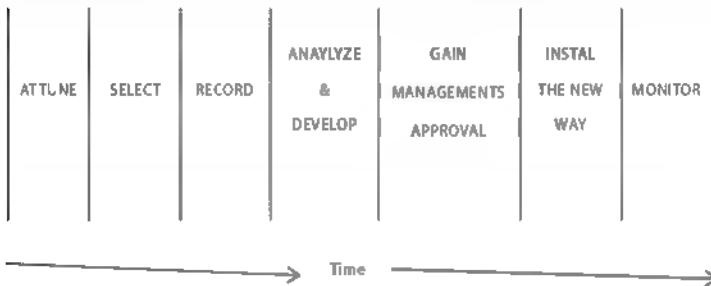
If we attempt to follow the work flow process it is vitally important that the senior administrators/managers in authority accept one fact and that is: an objective enquiry into the present state of affairs may reveal some skeletons in the proverbial cupboard, for it is like dust hidden under the carpet, if you do not look for it you never ever see it.

If such a frame of mind is forthcoming it is possible to proceed to the next state, ie what area should be selected for investigation

first. Shown sequentially it would look some what as follows (Diag 4):



Having selected where to begin, we are in a position to commence recording, and progressively analyze and develop, gain management's approach for the new way of doing thing, install the streamlined way and finally monitor it. The diagram No 5 below indicates the phasing:



If we add the Time dimension below the sequence of operations (as shown above) we have constructed an Horizontal Time Line (HTL) that portrays the sequential operations required in a project to improve/discipline the work methods that exist in the organization being investigated.

The “recording” aspect (the third phase in the sequence) is of paramount importance, because without it we cannot analyze and develop, gain managements approval, install the better way of doing things or monitor what continues to go on. Monitoring or auditing the system ensures that any change (internal or externally oriented) can be absorbed into the system in a formal fashion.

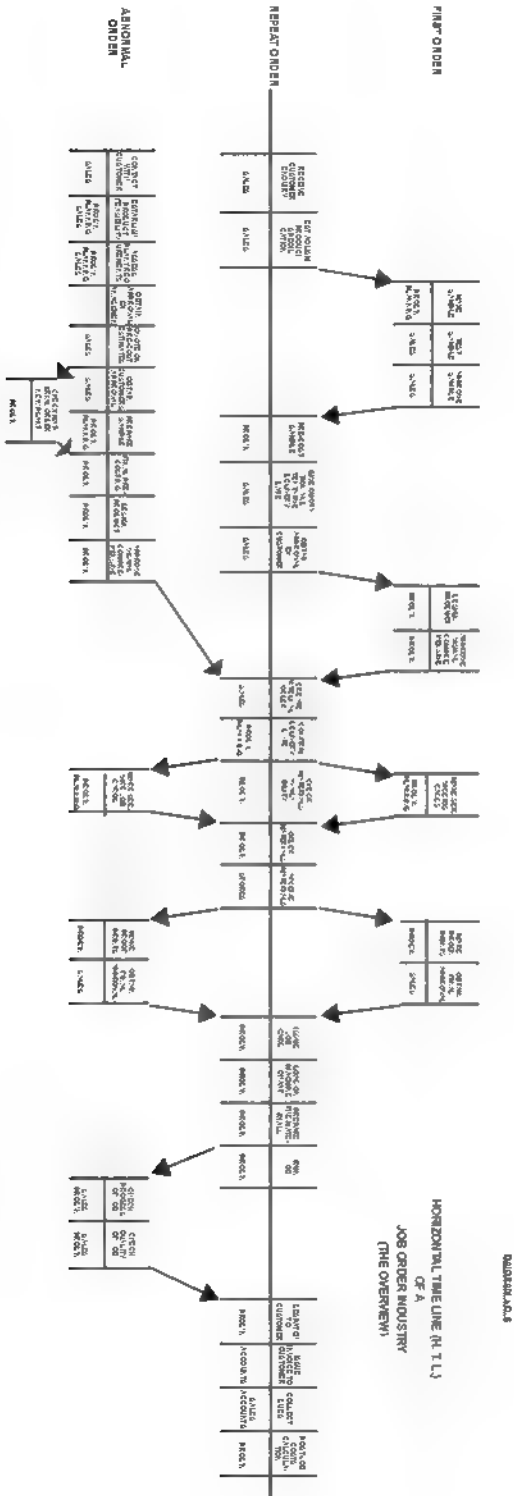
This is of significance if we consider any large organization and makes an attempt to catalogue the various forms floating around.

This means it is necessary in the long run, to set up a small section concerned with the well being of the information networks of the organization in question. Because information is common to all functions such a section must report directly to an individual competent to deal with inter-functional differences; this may mean restructuring the organization somewhat.

Having understood what the HTL is (an overview) we must find ways and means to construct such a picture for all the activities of an organization---sales, accounts, purchasing, legal, personnel, and so forth. At page 8 Diag No 6) is an HTL of an organization involved in a job order industry, ie manufacturing goods to order. Most orders are repeat (as one would expect), some come in for the first time and yet others are abnormal. Each order type follows a certain procedural sequence wherein some phases may be common to two or all of the different order types. Diagram No. 6 indicates in an overview of the total picture.

The method used in constructing the total overview is to enlist the active cooperation of the senior managers of the organization concerned. All functional heads get together at a single time and agree to the sequential flow of work thereby aiding in constructing the HTL (Diagram No. 6). In the course of constructing this overview such participation brings about involvement and quite a few cobwebs are cleaned out quickly enough. It is amazing to witness the range of conflicting opinions as to how work flows in an organization! This merely on account of each department considering it's functions to the total exclusion of all else.

It is possible to construct (with the active cooperation of those concerned) overviews of any organization involved in any type of activity, the sole proviso being, if we are to justify the resources allocated to such an effort, that it should be of a size where



plenty of documentation exists. But the overview by itself does not get down to the detailed aspects of work flow and we know that unless the individual procedures are also defined clearly it is pointless just knowing in an overall fashion how the objectives of an organization are being attained.

At page 11 in Diagram No. 7 a procedure concerning part of a Personnel Recruiting system is shown. The symbols used make possible a short-hand pictorial representation of what is going on at a particular cost centre, work station or desk. Each document is assigned an horizontal line. Hence if we wish to follow the flow of a particular document we keep our eyes trained on one horizontal line for the life of the document in question. Such flow charts are called Horizontal Data Systems Flow Charts (HDSFC) and several of them (depending on the number of activities systems/sub-system etc. that the organization is made up of) when put together give us the total detailed picture. Each procedure may take up 8-12 ft of charting. Hence if there are 60 procedures to be charted we end up with 600 ft. of HDSFCs. This might sound impractical but it is not. What we have achieved is the creation of a true mirror which can show us in a very short time (one picture is worth a thousand words) the completely detailed movement of all the documents floating around (including carbon copies!)

NARRATIVE DESCRIPTION OF THE PERSONNEL RECRUITMENT PROCEDURE (PARTLY) SHOWN

An application for employment is filled-in in duplicate and sent to the prospective employer, where the Inward Clerk receives the same. He makes the relevant entry in the Inward Register kept in the Receipt Department after date stamping the letter. The Inward Clerk separates the two applications and sends the original to the Personnel Section where it is received by the Asst: Personnel Officer. The A.P.O. checks whether it is a first application or a repeat. If it is the first application of the candidate the A.P.O. marks the Department concerned and hands the application over

to the Personnel Officer The P.O. telephonically checks with the Department manger whether the applicant should be called for an interview, if he has to, Form Letter No. 22 is duly filled in by the P.O. indicating the time and date fixed for the interview. The letter is sent to the Despatch Section to forward the same. The application form is filed away temporarily to be made use of later. If the candidate is not to be called for an interview Form Letter No. 32 is filled-in for dispatch to the candidate.

The second copy of the Application Form is filed by the Inward Clerk in an Application File in the Receipt Department.

If the applicant has applied for a job in the past or was formerly employed by the organization his application form is kept pending. Further action to be taken after a discussion with the Personnel Officer.

REARRANGED DESCRIPTION FOR PURPOSES OF FACILITATING FLOW CHARTING

1. The applicant sends application (in duplicate) filled-in by hand which is received by the Inward Clerk, who date stamps and give4s it a chronological number, these details are entered in the Inward Register kept in the Receipt Department.
2. The two copies of the application are separated. The second copy is filed by the Inward Clerk in an Applications File in the Receipt Department.
3. The first copy of the application is sent to the Personnel Section, where it is received by the Asst: Personnel Officer, who checks whether it is the applicant's first application or not.
4. If it is not his first application, then it is kept pending for further action after discussion with the Personnel Officer.

5. If it is the first application then the A.P.O. indicates which Department Manager is concerned and hands over the same to the P.O. who telephones the Department concerned asking whether the person should be called for an interview. If the answer is no then the application is filed in the Personnel Office and cyclostyled Form Letter 32 is sent to the applicant by the P.O.
6. If the answer is yes then cyclostyled Form Letter 22 is sent to the applicant by P.O. giving him the date and time for interview. The applicant's form is filed away temporarily to be made use of at time of the interview.

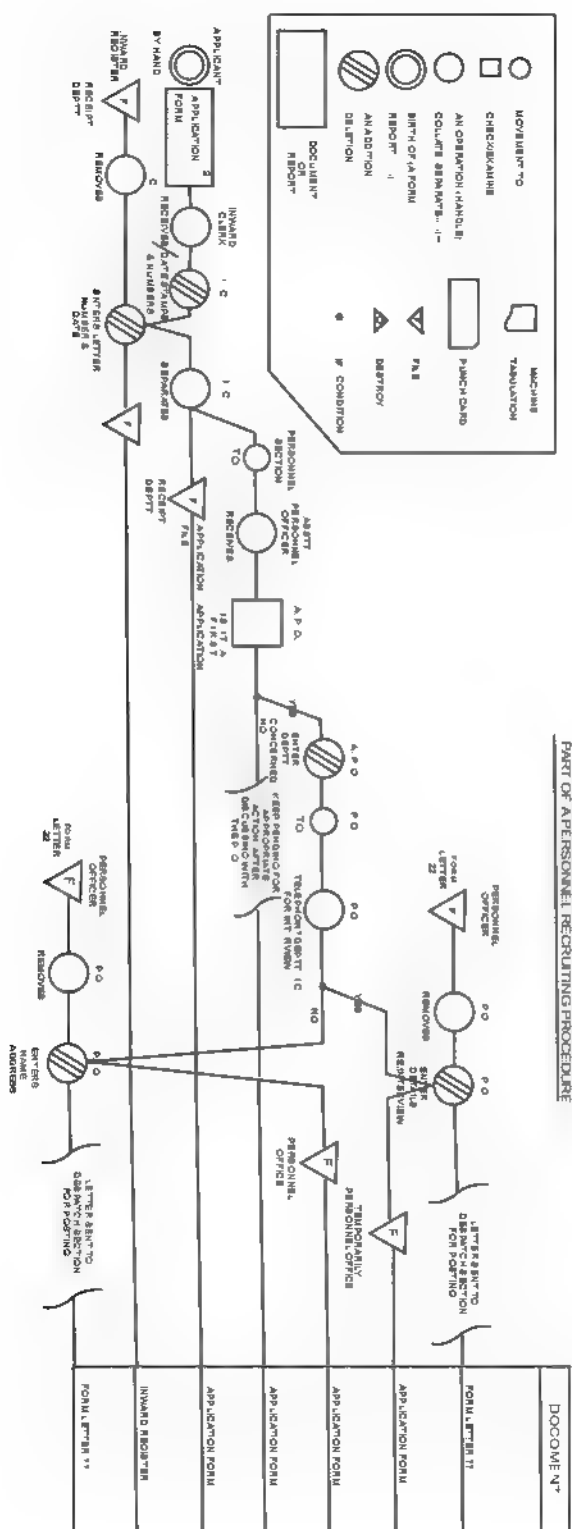
Explanation

The line(s) drawn across each individual HDSFC (detailed charts) indicates the path that takes longest in work accomplishment. This is better known as the CRITICAL PATH. There can be more than one such path in a single system.

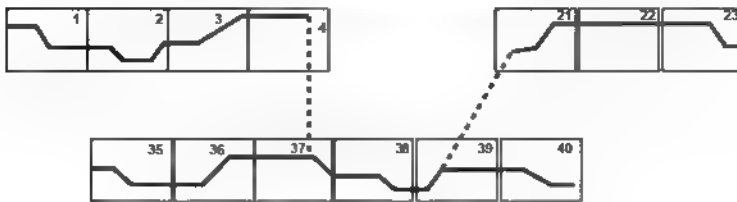
All the HDSFCs are stuck together (Diag No 8) sequentially representing the movement is analogous to work flow. In order to get the intermediate level picture a Summary Chart, which could be 10-15% of the total detailed picture (HDSFCs) is made. This Summary Chart provides the basis for top management intervention, it has enough detail in it to enable policy decisions to be meaningfully interpreted into practical procedures.

Each individual chart (the around view a little at a time) forms the basis for an effective O&M effort---one procedure at a time can be tackled keeping in mind the total detailed procedures of an organization, this eliminates conflict, optimizing the effort.

In order to appreciate the picture thus generated all the charts are stuck together (see Diagram No. 8 at above. A heavy line is drawn through each procedure's critical path (ie, the bottleneck path) so



PART OF A TOTAL DETAILED PICTURE
(THE GROUND VIEW)



as to direct our attention to those aspects of work flow that should be looked into first. The line going up and down across the charts represents the path taking the longest time.

As far as senior management is concerned the degree of detail indicated above is not required. So a Summary Chart of some 10-15% of the completely detailed picture (not shown) is made. It is thus made possible for senior management to quickly encompass the work flow operations at an intermediate level. What is left out in the HTL and what is impossible to quickly extract out of the HDSFCs is made apparent in the Summary Chart. At this stage the time element can also be entered which will show up very clearly where effort must be directed to streamline the system.

To recapitulate, at this stage we have achieved the following:

1. Involvement of senior management through construction of the HTL.
2. Involvement of junior management through construction of the HDSFCs.
3. Obtained a completely detailed (ground view) picture of work flow — (HDSFCs).
4. Obtained an intermediate view of the work flow (Summary Chart, not reproduced here).
5. Obtained the overview of the organization as a whole (HTL).

Where do we go from here? There are three aspects to this question: (1) Because of involvement of senior and junior managers we have improved the organizational infrastructure for appreciation of the necessity for streamlining. It is difficult to overemphasize this very important phase of the effort; (2) The individual HDSFCs can be handed out, one at a time, to an O&M team who can then get down to highly localized streamlining. And that too with full confidence that whatever improvements they may recommend will not merely move a bottleneck from a particular cost centre, work station or desk to another cost centre, work station or desk, ie point A to point B within the system, but in fact improve in an overall fashion the work flow. *It is possible, because they have access to the full picture.* Present day O&M teams do not have this access, hence such workers are usually highly frustrated individuals! (3) The Summary Chart is the foundation stone for senior management to lay down where and how what should be done. Also, because the extent of the work has been quantified, it is possible to budget resources (human, time and financial) meaningfully in the streamlining effort. The improved way of doing things may relate to manual methods only or machine aided work as well.

We have shown how S&P is related to O&M. S&P is also related to Electronic Data Processing (EDP) because the streamlined way of working provides the basis for a sound computer systems design. It bears repeating that the human being asks questions but the computer does not, hence the absolute necessity for streamlining (disciplining, making more logical, reducing uncertainty, eliminating chaos and disorder, decreasing entropy) in a scientific fashion our work methods that have grown up over the years in an uncoordinated and haphazard fashion.

There are several organizations in the developed world who in their extreme hurry to "improve matters" have plugged a computer into their system hoping that things will improve. Since it is not the custom to advertise failures, we do not hear much

of the added confusion created through such unprepared use of the computer. It is only when the input (feed) to the computer is logical that the output is also logical and meaningful. Any other approach will produce very quickly and expensively the best quality rubbish as the output, in addition to generating a pessimistic attitude towards the possible productive use of this extension of the human brain. Disciplining a system ensures that the computer is made a part of it thus making possible optimisation of any resources allocated to such an effort.

The conclusion that we are forced to draw from all that has been said is that it is necessary for us to continuously review our work methods which necessitates making use of techniques developed in the last decade, namely, that the Systems and Procedures approach is basic and common to large organizations of all sorts, that the Systems approach provides the basis for a coordinated attack on inefficiencies and in so doing makes possible an effective O&M (clerical work study) effort, overall improvement in the current way of doing things and incidentally lays the foundation of a good computer systems and design should the computer be justified later.

WHY GOOD GOVERNANCE ELUDES US

by Masood Hasan¹

*"In a world increasingly rushed to death, the long range waits on the immediate. What is **urgent** takes priority over what is merely **important**, so what is **important** will only be attended to when it becomes urgent, which may be too late"* – H J Halle

PART I

Traditionally, self-reliance has meant being able to do it all oneself. We are aware that there is hardly a person in the country who would deny the need for being self-reliant. In any case there is a gap between pious thought and self-reliance howsoever it may be defined.

Does self-reliance mean having unlimited money? If it did, Saudi Arabia should have no problems. Does it mean having a reasonable number of technologically competent manpower? If it does, Pakistan should have no problems (our countrymen do very well abroad without additional education and with very little training). Does it mean having an abundance of minerals? If so, Zaire should be self-reliant, but it is not. If we look at Japan, with a high density of population having to import large quantities of petroleum as well as grain to feed itself is self-reliant. Germany does provide a close parallel as it also suffered wholesale destruction of its physical facilities during World War-II. Of course, this does not mean there has to be a shortfall of natural endowments in

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order to be successful. The USA is well endowed naturally and is also self-reliant and not to forget its import bill is¹ much more than it export.¹ This means one does not look for self-reliance merely in terms of money or mineral wealth or by counting the number of heads or by exporting more. The origin must surely lie elsewhere, indeed, where does it lie? Understanding self-reliance is to understand good governance.

Achieving self-reliance means change. However, to bring about change we should pay heed to Einstein's observation that "Without changing our patterns of thought we will not be able to solve the problems we created with current patterns of thought." What changes are required at the ground level is always where success or failure is determined. However, it is those who control the workings of man-made systems at the higher reaches that need, in the first instance, to recognize some unfamiliar concepts in order to introduce some doubt in their minds that the current way of doing things cannot deliver the goods. It is the thinking of yesterday that has conditioned today, equally the thinking of today will condition tomorrow. It should also be borne in mind if drastic changes have to be made that there is the initial transient turbulent phase followed by the routine steady state phase, and that the requirements of both are not the same. Further, it is only when a reasonable number think on these lines that a critical mass can be built up ensuring sustainability of the "new" movement. The alternative is to await the appearance of a charismatic powerful leader who gets things done, short circuiting an evolutionary movement. Such a leader ignites a revolution in thinking with all that goes with it.

Some questions that we need to ask ourselves are

1. Does simple work over the years in expanding organizations throw up problems that are no longer amenable to the commonly or traditionally accepted ways of solving them?

2. Is it possible to work out a strategy that is both helpful to change as well as providing for institutionalization of changes made?
3. Is judicial and/or audit accountability sufficient to keep an organization on the right path or is there any other way of defining what type of controls can be effective?
4. Are there any short cuts for underdeveloped countries to ensure the path of most resistance eg from R&D to acquisition is made easier?

There is no question that independent of the type of political system, capitalistic, socialistic, communistic or any other that the government has willy nilly to work through the bureaucracy, there is just no other way. Therefore, whatever can be done to make the executive more productive must be seriously considered.

Qualitative Shift

Consider the vast expansion in all activities since partition. Starting with an annual budget of Rs 100 crores and a population of 35 million. We now talk of a budget of nearly two trillion rupees and have more than quadrupled our population, Let us look at some of our activities. We observe in performing work, particularly at the mid and lower levels that results obtained are not the same as, say 40 years ago eg the same type of crane unloads the same type of crates, gunnies, drums or containers at Karachi port; for the crane driver, the recording clerk etc the work is much the same. The railways transport human beings from, say Lahore to Karachi; for the ticket clerk, the engine driver, the cashier etc the work is much the same. Considering electricity distributed to a customer; for the meter reader, the maintenance technician, the complaints clerk etc the work is much the same. Considering pension cases, the procedure for retiring employees is much the same yet in the examples given above we are all very well aware of a massive operational deterioration over the years. Why is this so, after all the basic work of shifting levers/recording reading/salaries, cash

receiving/disbursing, recording complaintshas **not** basically altered ie at the level where the physical transactions actually take place, which is also where the productive work gets done, which is also where the overall successes/failures of an organization are well and truly laid. To put it in another way why is it that the methods used in the 1960s for solving problems are no longer delivering the goods today? Is this not thrown up in many ways, culminating in frustration or even exasperation eg even though the route mileage of the railways has not really increased but through much more intensive use of the facilities over the years new problems have been thrown up that have been so difficult to resolve. Also consider our internal revenue system, under the four heads – Excise Duty, Sea Customs, Sales Tax and Income Tax, the total annual turnover in 1948 was about Rs 200 million, today under the same heads it amounts to over thousands of times more!. We are also aware short term curative actions at least on four occasions were supposed to have set the system right. Has it? Consider our utility billing, who does not have a bitter experience on that topic? Hardly a customer does not have pungent views yet month after month one hopes for improvement ... and, of course, other examples could be given.

An analogy might be some assistance, as this is one way of approaching the unknown from the known. Supposing it is necessary to move stones from point A to point B and time is of no consideration. It could take 30, 40 or even 50 years. A contractor could employ 5, 10, 100, 200 or even 250 labourers to do the job. If the number of labourers were to exceed 250 he would find it very difficult to remember all their names. However, up to this number he could at a glance know at all times who was absent without leave, who was working very efficiently, who was malingering, who was a victim of domestic trouble .. in dealing with this small number of individuals, because of its small size, As a result all problems could be fully and efficiently encompassed by a single brain that had full knowledge of all the physical transactions.

Hence control is as efficient as could be. However, if the same stones had to be shifted in a few months, maybe 100,000 labourers would be required, maybe 50,000, maybe 5,000. If the contractor attempted to use the same methods as he had previously used he would never be able to accomplish the task. In fact it doesn't take much to see that he would very quickly fall flat on his face. He may have to put up a temporary labour colony (with all that goes with it). He may have to run a transportation service (with all the workshop and maintenance and procurement/stocking problems). All the thousands of workers would have to clock-in for work (which would require comparatively sophisticated arrangements), maybe 3 shifts, 7 days a week. Again who would report to whom, additionally, there would be problems of hygiene, as also problems of feeding the workers.....

In both the above cases the expected results required are exactly the same, ie stones at point A must end up at point B, yet the problems thrown up in achieving the same results are of a **totally different** nature ie a qualitative shift has taken place in the nature of the difficulties doing **exactly** the same type of work ie shifting the stones. At what stage this qualitative shift took place, as the size of the effort intensified, no one can say but most certainly it did. One can jump across a small nallah in one's stride but try jumping across river and that too if one can't swim!

We have to accept that this qualitative shift has taken place in several organized activities. Therefore, it would be logical to assume that this shift would call for a corresponding shift in our methods/attitudes towards work, towards our methods of training, towards our methods of evaluation, towards our methods of coordination, towards methods of control, towards our methods of planning, towards our methods of recruitment and above all towards our methods of acquiring information.

The reader will readily note that all these non-productive activities are concerned with servicing the system to assist the

mid and lower levels to take care of the physical transactions and these have not altered, as brought out earlier.... This entails the introduction of support, services or staff functions. And last but not least in understanding that the more that power (authority) is concentrated at the top of the pyramid the more self-defeating it becomes. The necessity for decentralization becomes paramount. With decentralization the requirements for control alter because no longer does one person in "carry it all in his head." It is here that acceptance of the value of centralizing information through a Management Information System support service leads to confidence in delegation of authority, not abdication! Information is thus singled out for special consideration because in **all** administrative/executive officers are only handling information and making decisions and nothing, but nothing else. Of course, the quality of a decision is directly dependent on the quality and time of receipt of the relevant information.

In an organization where the qualitative shift has not taken place, ie a small organization, the top man can through personal contact keep tabs on all activities. As such, his subordinates can funnel upwards information that the top man can check/counter clerk/validate in good time so that corrective action is taken before the veritable horse bolts from the proverbial stable!

In large organizations, we are well aware, the top man has insufficient time to go into all problems in detail. This has, over a period of time (because of a lack of understanding the qualitative shift leads to problems galore), forced subordinate units to decide **in their wisdom** what information should be funneled upwards to the boss, for him to make **his** decisions to discharge his responsibility upwards! Giving the subordinates the best of intentions, it is unfair to expect them to do justice in pushing upwards what is really relevant information ie relevant to the requirements of the higher level. It is the top man in each organization who must decide what he requires and this has, in our existing conditions, become a veritably difficult job. Just as a heavyweight wrestler can lift weights well

enough, his ability to design a crane should be suspect. Likewise a good decision maker's ability to **design** an efficient decision making system could be equally suspect. The expertise required for each activity is different. We need to understand this.

Technology & Administration

Considering that the old world is familiar with the direct management of things that can be touched, seen or be felt that such as stone, wood or iron and that too, in "reasonable" quantities. The world of today is characterized by the need to first: understand and second: to manage complexity such as exists in an air defence or a tax administration system. This means paying more attention to the **method**, hence paradoxically immediately less to specifics. This arises because a qualitative shift has taken place in the nature of problems being exhibited by activities/problems. This means our approach has to reflect this shift adequately. In dealing with problems of size involving large numbers of individuals or machines or both. Problems thrown up are certainly complex with interlinks or crosswalks that have to be unearthed painstakingly to achieve sound comprehension (this activity is systems analysis). All complex problems that have not been understood, hence mismanaged, causes similar reactions including frustration – dissatisfaction – anger – inefficiencies – losses – reorganizations – replacements. **Knowledge** is the tool for handling all this. But it is easy to weigh a "thing" unlike attempting to measure or weigh knowledge. Yet we do equate purchase of knowledge with purchasing of "carrots and radishes". Little wonder the results leave much to be desired! This approach can never move in the direction of effectively reducing frustrations or complaints in our daily work. Even though such problems may be "solved" on paper but this is not reflected in practice ie at the level where the physical transactions actually take place.

As a result, there is little demonstrated demand or evidence for incorporating planned technological change as a regular **process**.

Technology being broadly defined as know-how to solve problems all sorts: commercial, industrial, administrative, technical or non-technical in man made systems. To change an unsatisfactory way of doing things, it is necessary to understand how the unsatisfactory way functions in detail and to understand the obstacles to change and the potential leverage point(s) that would require preferred attention to condition change. The need for systems analysis is indicated. This amounts to a "baal-ki-khal" approach which for the computer buff is "binary."

Technology cannot be limited in its use to a mere description of physical artifacts. It encompasses both machines and the **process** or **methods** used in the production of goods and services and performance of social functions which includes the **process** of administration. It is "how we do things" as well as "what we use to do with them". Therefore, technology embraces not only the numeric lathe, computers and computer software and highway construction, but also the assembly line, analytical statistics, dams design, streamlining of systems and procedures and problem-solving techniques employed.

Attempting to introduce new technologies ie "plugging" them in as it were without making necessary preparatory changes in the organizational and work-flow aspects of the socio-technical system – which is what the government is – often has adverse rather than positive effects. The necessity of on-the-job general supervisory/coordinative training (not in vogue) needs acceptance. Technological inventions such as motor cars, electricity, television and the other modes of electronic communication, the production line, process industries, pesticides and IT are profoundly influencing our lives. They have dramatically influenced how we think and provide some of the inputs that go into the public debate.

In Ashby's terms government must develop "**requisite variety**" ie responses to equal the variety of important functions in

its environment. **If systems /governments do not develop requisite variety they simply cannot survive.** Rules and regulations governing work flow may have been adequate when laid out originally but may no longer be so eg Foster and Whiffin's recommendations of 1863 (Queen Victoria's time) laying down the single entry cash accounting method which is yet followed in a number of institutions and we know with what results. Our education system is also not taking note of new inputs. Something needs to be done about it considering the time constant or horizon for implementation of an education policy which may be 12 years. This is much longer than the tenure of those seeing it through.

Technology generates changes in society and the natural environment that cause governmental responses that though adequate at one time are totally inadequate at another. In order to steer, government must continually increase its repertoire of responses relative to changes in its domain, this usually leaves the law gasping to catch up. It seems imperative that government attempt to supplant the current methods of incorporating change with more systematic methods. The old, haphazard methods representing "tradition" are just not working adequately and they never will. This means creating a predictable process of information flows. It follows that the government must develop a capacity to effect "anticipatory responses" which can be contrasted with the more typical reactive response that currently characterizes our contemporary institutions ---- keeping one or two steps behind instead of ahead of problems. This follows from a typical law and order non-developmental "tradition", a relic of colonialism and feudalism. Typically we can spot all the wrong answers but equally typically do not pose the right questions.

The basic reason for so few scalar economies is that the **government tends to employ the same methods for providing a service no matter what their size, no matter whether the processes used are simple, complex or hi-tech hence without**

regard to what might be. As organizations grow in size (even doing the same work) the qualitative shift takes place in their problems which amongst others must also be reflected in their organizational structures as well as information flow patterns. **Many of our large organizations unfortunately are simply replicas of small organizations or vice versa,** similar to the broad sweep of the law. As wages and salaries increase without corresponding increase in productivity, costs for providing government services also increase. The need for multidisciplinary analysis as systematized in the early stages of World War II, in the first instance, in the military establishment is required. The lessons learnt were transferred to the civil side after the war ended. This interchange between the civil and military establishments continues apace in the outside world.

Consider that our macro-economics, strategy, planning and wholesaling are all very effective, the economic indicators announces this. But when it comes to the micro-economy, the tactics, the implementation and the retailing function, expected results are just not obtained. This is leading to wealth circulating at the top years ago 22, now 2200 families. We must ensure that wealth moves from the top to the bottom ie vertically. A major cause for the fruits of a better overall economy not being distributed is caused through corruption.

More on Technology

We need, in the first instance, to understand the relationship/ differences between science and technology, though both do use the scientific/empirical method.

The development of the steam engine provides insights in the methodology of technology. Briefly, the original concept arose out of using the explosive power of gunpowder to create a vacuum. It was suggested in 1690 that it may be harnessed to move a piston. This led to Savory, an army engineer using

pressure to move a piston, his engine was used for low water lifts to pump out water because mechanical engineering technology had not developed sufficiently. Later an ironmonger/plumber (Newcomen) made a blown up version of this engine. Later, an internal jet was introduced for cooling and atmospheric pressure moved the piston. The efficiency was that the cost of pumping was 15-30% of using horses. The engine achieved 4 horse power.

In 1767 Smeaton, an instrument maker raised it from 4 to 7-12 horse power ie an increase of 200 to 300%. However, there was no new invention on his part, he merely improved on Newcomen's materials of construction by boring better cylinders.

In 1775, Watt, also an instrument maker got into the act after he was asked to put a Newcomen engine in order. Watt supplied the engine with a separate condenser, steam moved the piston and a governor for control was introduced. The result was the duty that Smeaton had achieved of 12 was doubled to about 24 HP. Later the introduction of the two-stroke engine upped output by 50% to 36 HP.

During the 1800-1830 period machines with more than one cylinder were introduced in which the output was increased by 200-300% bringing it output to about 100 HP. Below is another example.

Computer

It would also be useful to look at the development of the computer. Babbage in the UK invented it, but it could only be of practical use when the vacuum tube was invented, about a century later. It then became a practical (though somewhat expensive!) artifact in the immediate post-World War II period. This first generation machine has gone through several generations, the third in the 1960s, we are now with the fifth or is it the sixth or seventh generation? In the 1960s memory chips accommodated

16 bits, in 1972 1000 bits, in 1964 128,000 bits now the world has 256,000 bits and more and is looking to yet much more in this move towards increasing micro-miniaturization. Just as the steam engine drove the development of thermodynamics, the computer is driving computer science. The difference, of course, is what took the steam engine a century is taking the computer far less time!

Let us also look at what is developing in information technology right now. Consider expert systems ie after working out the systems architecture computer programmes are required for solving complex problems where prior experience is almost essential such as in medical diagnosis, geological prospecting or tax planning. Such systems are also built up in an **incremental** fashion iteratively. This is hi-technology in which resources are invested in an **intangible** which requires maintenance and can be depreciated In Pakistan we yet have problems in assessing technology involving tangibles! However, it can be seen that incrementing is how technology does progress. There is no good reason why it should not continue in this fashion. Remember that in achieving 100 HP a number of **incrementally cumulative** steps were made in over a century.

Technology, by and large does progress incrementally, each improvement adding on to the existing inventory of achievement, if only for the good reason that existing assets cannot be written off overnight without creating chaos. There have been very very few genuine quantum advances in technology, a good example is that of the transistor. It happened because the same organization researched and developed it and then brought it into production. Another important point to observe is that improvements could only be made when there was **intimate knowledge of the physical transactions** taking place at the level where success or failure was spelt out ie at the operative level, in no uncertain terms. These two important points have application to a host of other situations which should help technologists to understand

why there are so many obstacles to progress. To repeat the definition of **technology** is very simple, with reference to man made systems, **it is the know-how to solve problems all sorts.**

With comprehension of detail, **the devil really is in the detail**, more or less recognizable as a fully exploded mechanical engineering piece part drawing that cannot be exploded any further. To alter a system, detailed knowledge of how it functions in all its glorious detail is essential otherwise the chances of enunciating unimplentable policy are greatly increased. However, if the correct approach is followed it leads to the identification of:

- what obstacles can thwart progress
- where the potential leverage points for attack are located

The above is **concerned with the applications, not necessarily with an understanding of science.** However, lest it create misunderstandings it is true that there needs to be interaction between technology and science. Over a period of time one spurs the other. For example, when the power of the steam engine had got to what appeared to be its limit in 1830, it stimulated the development of the science of thermodynamics. The movement is, therefore, a two-way street. We may be more accustomed to science contributing to technology (usually outside Pakistan) but post – 1830 the need to build better steam engines certainly advanced thermodynamics. As pressure or rotating speeds increased metallurgy, corrosion, chemistry and other disciplines were involved. Technological evolution usually makes better scientific instrumentation possible which can be a major factor in advancing science itself.

Technology is usually industry oriented and is exceedingly complex because it deals with two types of efficiency firstly, with the physical and secondly, with the economic. Physical efficiencies are always less than 100% and economic efficiencies must exceed 100% for continued successful operations to stay

afloat. Usually in the final evaluation where technology plays a premier role, economic efficiencies must take precedence over the physical. Technologists must make themselves aware of this fact of life because the fruits of technology are used in the economic environment which is to do with the wants of people who are a part of the social environment. The problems of technological advancement, unlike science concern a universe over which it may have no control whatsoever.

With continuing technological advancement and continued poor governance it will not be long before we cease to count altogether.

Consider internet and the electronic mechanisms involved to keep pace with others in this, our global village. Electronic commerce, with its lower overheads will increasingly shape our lives. It will need consideration of the legal status of non-analog transactions ie digital say, through e-mail. It will also concern taxation and also taking care of fraud etc. But success as in other and more so in this field is dependent on accepting the non-traditional or new ways of doing things. Our mind set generally is unprepared. Technology offers solutions which we pay lip service to, but reject by the way we act. We need to prepare the relevant infrastructure and move over from the thinking of the direct management of things which may be solid and can be weighed to the substitution of machines by the electronic environment. This includes

"new insights into symbol generation, transmission and its logical manipulation. This has led to invention of sensors such as radar and sonar in symbol transmission to the phone, radio and TV, in symbol logical manipulation to the increasingly productive use of the computer — the creation of software, where training has the upperhand. A better understanding of the role information plays focuses on the fact that it is the interaction between the subsystems rather than the efficiency of each part that controls the output". Some thoughts on Self-Reliance & Missing Links, Masood Hasan (Proceedings

Vol IV Symposium). The Institution of Engineers, Pakistan, 23rd Annual Convention Lahore March 1980.

With an understanding of the nature of technology and its methodology it should become clearer as to how a policy can be converted to results at the ground level, where the physical transactions take place. We now move on to a third factor.

Accountability

However even with an understanding of the nature of technology and the qualitative shift there is yet a third important factor, and that is the need to hold functionaries appropriately accountable for policy implementation at their respective levels.

A brief recount of our colonial (not Islamic) heritage will not be out of place.

Around the year 1200 England started to export black faced sheep's wool to Europe because the technology to convert it into cloth existed in Holland. Commercial transactions do attract legal intervention for a variety of reasons. Wool was no exception. In fact the expression "spinning a yarn" is not without good reason! Differences arose on account of, amongst others, valuation for purposes of customs duty/excise etc. Valuation could be related to colour, fibre quality, lanolin content and each characteristic may involve technical knowledge of experts. Further, that time was the essence of transactions must not be forgotten Cases were adjudicated by common law courts involving very uncommon (to it) facts.

If there are eleven variables there are nearly 3.7 million ways of putting them together. No compendium of laws or rules could possibly have **all** the definitions neatly laid out to assist the lawyers and common law judges. As a result many of the judicial court judgements were unjust and the Lord Chancellor's version of

ijtehad was to take away such cases to his court. He dispensed with due process, used his grey matter and concentrated on equity and morality (in the absence of the life blood of the legal profession ie precedent) and handed down equitable justice. After about 200 years this method was absorbed in their legal system. Later, Thomas Egerton Brackley, better known as Lord Chancellor Ellesmere, secured in no uncertain terms the independence of the Chancery Court through James I in the face of opposition from the Chief Justice Sir Edward Coke. The Chancery Court was "originally set up as a tribunal to decide cases not served by common law – to correct its **rigidity and insufficiency** – and it came into rivalry with the common law courts. When it granted relief against judgements of common law in 1616, a conflict with Ellesmere's antagonist, Sir Edward Coke Chief Justice of the King's Bench, ensued and was resolved only by the King's decision in favour of equity (Earl of Oxford's case). Thereafter the equitable jurisdiction of the Court of Chancery was unquestioned" (*Encyclopedia Britannica* 15th Edition Micropaedia II 217). The amalgamation of the courts in 1873 in the Judicature Act reconfirmed the three divisions Queen or King's Bench, the Chancery and the Admiralty etc".

We, in Pakistan have yet to do our *Ijtehad*! It is clear the imbroglio involving our Chief Justice and the executive would have been obviated because the Supreme Court accepted for adjudication, reportedly some 6000 cases. As a result many decisions trod on the soft corns of the executive with this suo moto action. It is clear that the proper separation of the three pillars ie judiciary, legislature and executive does not exist. In fact if the executive were truly independent, the independence of the judiciary would follow! This statement is indeed no oxymoron! The judiciary had been placed in an anomalous situation, pronouncing judgements in cases that should **never** have gone to them in the first instance. More than one Chief Justice has commented as such in the past (see *Dawn* Sept 29 2002 on *Administrative Function*).

Resultantly, the consequential judicial activism has led to terrible

but entirely predictable consequences. After all the clash had to come sometime.

It is relevant to look at the Napoleonic approach. Napoleon had absorbed Islamic ideas during his forced sojourn in Egypt for a little over a year, per kind favour of Lord Nelson who sank his fleet in Aboukir Bay. In France, the three pillars are kept cleanly apart. In Pakistan the executive is happy that the process of judicial review exists because it lets them off the flexible administrative hook on to the "rigid" judicial hook. This means, once the judiciary steps in it follows due process which at best is sorely limited. The limits are burst through judicial activism. Because judicial courts do not have the resources to appoint professional investigators to investigate the usual lack of evidence and where technicalities are involved (as in the black faced sheep's wool example) and with the absence of precedent the chances for unjust decisions exist. In the past we were thus landed with the doctrine of necessity, which its originator decried in his book *"From Jinnah to Zia"*. Look at its disastrous results.

When the Holy Prophet (pbuh) heard complaints made by citizens, he did **not** do so as Chief Justice **nor** as Auditor General he did so as presiding Chief Executive Officer. Later the caliphs followed his example. The Umayyad caliph, Abdul Malik bin Marwan formalized this process, which meant accountability of the executive resided **within** the executive, as it does in France and countries with the Napoleonic disposition. This means having a Council of State headed by the Prime Minister as the highest forum of appeal equivalent to the Islamic Mazalim (Complaint Courts) of old. The Moghal kings worked the same way which meant good governance, hence ruled for hundreds of years. Jehangir's first act on assuming kingship was to install the chain of justice and it is well known that the king, as CEO delivered judgement on the complaint of an old lady against the powerful Muqarrab Khan. There is nothing strange about this. After all, all our private and public companies, MNCs, armies,

navies and air forces the world over ensure executive discipline within the executive, wherein merit and timeliness are usually of supreme consequence.

We need, therefore, to enforce Article # 216 of our Interim Constitution of 1972 (Article # 212 of our current constitution has decimated Article # 216) which reads as follows:

"Administrative (1) Notwithstanding anything hereinbefore contained, the Courts and Federal Legislature may by Act establish one or more Tribunals Administrative Courts or Tribunals to exercise exclusive

Jurisdiction in respect of:

- (a) matters relating to the terms and conditions of persons in the service of Pakistan, including the award of penalties and punishments;*
- (b) matters relating to the imposition, levy and collection of any tax, duty, cess or impost;*
- (c) matters relating to claims arising from tortious action of Government, any person in the service of Pakistan any local or other authority empowered by law to levy any tax or cess and any servant of such authority acting in the discharge of his duties as such servant;*
- (d) matters relating to industrial and labour disputes; and*
- (e) matters relating to the acquisition,*

administration and disposal of any property which is deemed to be evacuee property or enemy property under any law.

- (2) *Where any Administrative Court or Tribunal is established under clause (1), no other Court, including the Supreme Court and the High Courts, shall grant an injunction, make any order or entertain any proceedings in respect of any matter to which jurisdiction of such Administrative Courts or Tribunal extends".*

In Article 212 items 1 b and 1 d have been knocked out an addition made further "and all proceedings in respect of any such matter which may be pending before such other Court immediately before the establishment of the Administrative Court or Tribunal shall abate on such establishment: Provided the provisions of this clause shall not apply to an Administrative Court or Tribunal established under an Act of a Provincial Assembly, unless, at the request of that Assembly made in the form of a resolution, Majlis-i-Shoora (Parliament) by law extends the provisions to such a Court or Tribunal.

- (3) *An appeal to the Supreme Court from a judgment, decree, order or sentence of an Administrative Court or Tribunal shall lie only if the Supreme court, being satisfied that the case involves a substantial question of law of public importance, grants to appeal"*

Over the years the institution of Administrative Courts in

France has increasingly commanded respect and is a strong protector of the rights of citizens wherever administrative arrogance is displayed. Such courts like the Mazalim courts are not handicapped by any jurisdictional or procedural niceties. In Finland or Sweden there are Supreme Administrative Courts similar to the French Conseil d'etat with its hierarchy of courts. In France the main features of the methodology of the Administrative Courts are as follows:

1. *Their procedure is inquisitorial ie, administrative court judges are not just umpires, they go into the propriety of the administrative decision and collect information through their own rapporteurs, if necessary—thereby reducing the possibility of injustice due to lack of resources on the part of the citizens to engage expensive lawyers, or in getting relevant information from government departments.*
2. *Their judicial review is comprehensive ie the court not only goes into the facts and law, but also into the motives, be they personal, political or social. The onus of proving the bona fides lying on the administrative authority.*
3. *The court insists that subjective satisfaction must be justified externally, that administrative decisions must be justified face to face.*
4. *The court's jurisprudence is creative and dynamic; that is, the Court is not bound by precedent or bogged down in jurisdictional issues. The underlying principle is to secure a proper, ethical and decent standard administrative behaviour — "administration shall not lie".*
5. *The Conseil is marked for its independence and fearlessness even though it is constituted within the Civil Service Structure.*
6. *The Conseil has gone farthest in extending the vicarious liabilities of the State. Damages have been frequently awarded against the State, because in France there is no immunity of the State against claims arising out of wrongful assault, battery, false arrests, malicious prosecution or interference*

with contracted rights, in many cases the Conseil has awarded damages against the State.

The success of this system lies in the fact that the Conseil is part of the Executive, coming directly under the Prime Minister. Where doubts or difficulties arise as to jurisdiction in France, there is a Tribunal of Conflicts which is composed of representatives of the Conseil and the Judiciary in equal numbers under the presidency of the Grade des Sceaux (Ministry of Justice). He normally does not attend, but if there is a deadlock he uses his vote. It may appear improper for a Minister to have this power, but this is probably the best solution as no independent Chairman could be drawn from the Judiciary". Administrative Courts and the Ombudsman Masood Hasan, Pakistan Times May 23, 1972.

When we consider the tremendous expansion of organized activity that has taken place in all walks of life in Pakistan within few years we realize that the procedures (in all their glorious detail) are by and large not defined because by the time one gets round to a definition, further modifications are required. It would appear that we just simply cannot catch up with ourselves. The concept of continuous (as opposed to periodical) evaluation imposes tight administrative discipline on individuals running organizations. This discipline can never be enforced by a court of law. This discipline can only be enforced by a branch of the executive armed with the authority to penalize the offending official.

In short, we need to go in for a retrofit of our concept of administrative accountability. It is only through such an approach, given our ways of working, to provide the good administrator or manager with service security by ensuring administrative accountability.

A new beginning has to be made if Pakistan is to ever have an efficient bureaucracy that can be held accountable. This is the best

source guarantee that is required because authority on the one hand and accountability on the other are two sides of the same coin. Delegation becomes meaningful as it will not amount to abdication, resulting in meaningful decentralization, empowering those at their own level of responsibility by providing matching authority.

Habits make good servants but bad masters. Our colonial heritage of hardly 100 years, is no match for what led to Islam's early expansion. Certainly not through the sword, but in ensuring equitable behaviour with the different people-types in the Empire. *"The area of this state, according to historical evidence, was no less than three million square kilometers. In other words the average expansion was some 845 square kilometers per day (within the ten years Madinah had become the capital). This expansion was achieved partly through peaceful means and partly through war. In addition to details of the battles waged we have details of the number of casualties. The average number of enemies killed in the course of conquests ... works out to less than two per month. In ten years less than two hundred and forty men were killed. The number of Muslim casualties was much less ... This was a lesson for contemporary rulers for it provided a practical example of avoiding unnecessary bloodshed by the Prophet (pbuh)".* (The Emergence of Islam, Muhammad Hamidullah, translated/edited by Afzal Iqbal. Islamic Research Institute, Islamabad --- State and Administration, p 199).

It is also relevant to recapitulate Akbar's dictum ... "For the rulers worship consists in the dispensation of justice and the improvement of the realm" having firm belief in the oft-quoted maxim of Muslim statecraft that "a policy can endure despite disbelief but it cannot last without justice" (Nizamul Mulk). Likewise a hadith of the Holy Prophet (pbuh) can be recalled "A moment spent in the dispensation of justice is better than seventy years of devotion". Akbar also said "If I were guilty of an unjust act I would rise in judgement against myself. What shall I say then of my sons, kindred and others?" The Moghal emperors

regularly appeared, even if not feeling well, in the jharoki-darshan and the diwane khas wa aam. It appears our forbears understood better why our work methodology was to be called the Rules of Business and not the Rules of Administration! A businesslike approach is the call of the day. It certainly irked the British to see Hindus cherishing with nostalgia the memory of their erstwhile Muslim and Moghal rulers. In the 1857 freedom fight against the British the Hindus high caste initiated the same at Meerut which was later joined by the Muslims.

To summarize, there are three more important aspects requiring conceptual acceptance to permit movement in the right direction. The **first** is that of the Qualitative Shift, the **second** is an understanding of the methodology of technology and its relationship to science so as to use it as a means for progress rather than end in itself. The **third** is that of accountability for obtaining results. We should compare our inherited Anglo-Saxon model with the French, which is fully consistent with Islam in which ensures the three pillars of state are all kept at arms length. Doesn't the current political impasse tell us of the results arising out of suo moto judicial action (activism) by the Supreme Court? The judicial ship of state is like a majestic 500,000 tonne tanker negotiating an about turn, the radius which could be many kilometers and at a lumbering rate. Whereas the administrative vehicle may have to make a quick reversal of direction in double quick time. The law is looking backwards at an act of commission **after** something goes wrong and only when brought to its attention. Its approach is and must be precedent based. Whereas administrative requirements may arise out of the needs of new and more complex unforeseen situations affecting the future. It may have to --- in order to avoid seizing up of the administrative engine, through lack of adequate tolerances or lubrication (of the good kind!) --- ensure the administrative **process** is held intact and not to waste time in cutting the Gordian knot of disjointedly incremented procedures and obtain results. The approximately correct action at the right time is infinitely better than "absolutely"

correct at the wrong! Precedent thus, is not sacrosanct in order to honour the letter of man made obviously inadequate law. Whilst only three concepts have been explained, that is not to say that they are enough. There is much more, including concepts of professionalization of knowledge, the build up of complexity in organizations, the multidisciplinary approach, training types, the need for mapping of systems involving the stakeholders, Then there has to be comprehension of the requirements of different administrative cultures, the inductive and deductive methods, the form and content of problems and above all how all this can help in navigating the difficult passage of continuous change. We must recognize that our flawed approach has fallen under it's own verdict. It's doctrine has not been converted into the reality we have wanted. Recognition involves having the intellectual integrity/capacity to accept failures with goodwill and grace. Only then will the sympathetic management process, tailored to each systems requirements, be oiled in. The broad brush "judicial" approach has not worked for 60 years. Why should it work tomorrow?

PART II

What is the use of theory if it refuses to work. It usually refuses to work because of incorrect assumptions made. Further, exposure or transparency is what we do not want as it may embarrass us. Witness the very few (if at all) PCVs filled up for five anniversaries after a project is completed to check long term evaluation with special reference to assumptions made. Short term evaluation arises out of the PCIII's or Quarterly Progress Reports. Information is the basis for action, this has been pointed out by Stafford Beer in "Platform for Change" in the chapter on "Argument of Change (*Homo Gubernator*) p28 that Norbert Wiener, the founder of Cybernetics realized what a great leveler -- information is "systems exist and run and are controlled, by virtue of an information content. When Wiener, the ranking mathematician, set out to measure the information content, he came up with a formula

which was the exact negative of the expression used for entropy..." (for entropy read disorder or chaos), So disorder is taken care of by "injections of information". It is through mapping of systems that current status is defined. Therefore, the routes as work flows need to be traced out. They are fixed, hence predictable. This is condition precedent to journeying ahead if you are not to lose yourself. There are many techniques to map. The best involve the stakeholders. After all it is of no use using a 100 year old map of Lahore to move from Mochi Darwaza to an address in Defence Housing Authority, you'll never arrive. The compendium of systems with it's detailed procedures (which require being kept current) is the route map of how work flows in an organization ie. how results are obtained. Such an exercise happened to be carried out in Pakistan Ordnance Factories (POFs) in the mid-60s of the last century which laid the basis later, for computerization. The author had done the systems donkey work as a private consultant and later, when POFs reported to him got those recommendations implemented. This is surely a unique experience! Good practice indeed produces excellent theory. The concepts elucidated in Part I formed the foundation to achievement many years later. The foundation has laid involving the stakeholders in mapping.

Again, consider the now obsolete T59 tank, with about 10,000 parts. 4000 were made in the Chinese aided factory in Taxila known as HIT (earlier it was P-711 then HRF) and 3982 in the private sector. It is significant it was an 80% deletion by number, not value. It would be difficult to identify any organization in the country that has achieved this, considering the complexity of the tank. It was necessary, as a part of the methodology, consistent with concepts in Part I, to place commercial discipline on top of military discipline (an unbeatable combination) rather than having it the other way around which would have resulted in failure as experienced in many other projects. Again SUPARCO fired the first missile and reverse engineered the 122 mm multi-barrel rocket ammunition in the mid-1970s in which the application of the concepts brought out earlier led to success.

Once again, the assembly of the first MFI-17 trainer aircraft better known as the Mashak was accomplished within 16 months of signing the contract with Saab of Sweden. By introducing the proper processes as had been done for the assembly of the MFI-17 (which later shifted from Risalpur to Kamra) 30 aircraft which had been condemned to the scrap heap were recovered. This was a by-product of the systematic way of doing things.

More examples could be given. Since the T59 case was a major success it will be relevant to bring out the following points:

1. It was necessary to restore the shaken confidence of sub-contractors, that they get paid promptly as per commercial discipline.
2. Acceptance by the government that resources spent on development may have to be completely written-off. This develops trust. In passing it may be mentioned that in 32 defence projects in the 50s and 60s in the UK some 500 million pounds sterling had to be written off but the national balance sheet benefited through spin off benefits!
3. Setting up a central agency to provide technical assistance to private organizations in a variety of disciplines including metallurgy. This central agency (which started up in three garages!) expanded later to include the groups given below:
 - a. Development
 - b. Paper particulars
 - c. Administration
 - d. Stores
 - e. Quality Control

Some of the subgroups include data processing, cost evaluation, technical coordination, technical documentation, drawing and design, technical library, product display (a well laid out museum), contracts, original samples, local purchase, fabrication, machine shop, inspection, physical and rubber and board/felt and

metallographic testing laboratories. **This enumeration gives a small idea of the complexities involved in acquiring systematic ways and means,** which amounts to good governance. Such are the ways of technology. To be noted all these functions are meant for support to the cutting edge, also known as staff functions.

4. Generating mutual confidence in the users and civil manufacturers that, if properly organized, it is possible to get things done successfully in the country, when but a few years prior to this activity there was scant practical application of this later realized potential. Over the years these vendors/ sub-contractors are presently doing good business in the automotive sector. This has helped the national exchequer and generated employment opportunities in a sustained fashion.
5. Recognition, informally at least, of the several necessary back and forth movements of information at various levels to propel the effort to a successful conclusion. This calls for a lot of patience that commercial discipline demands.
6. That it was possible to collect data from the hundreds of vendor firms of what effect defence financing had permitted them to expand into other lines of civil activity which otherwise may not have happened or if it did it would have taken a much longer time.
Unfortunately, this aspect has fallen by the way side, not unexpectedly! We are not applied research oriented, leave alone fundamental research.

Consider the purchase of an old Daphne submarine and it's subsequent refitting abroad. This project was subject to an advantageous commercial contract which made it possible later for the navy to do better than what was done in France, later in Karachi.

Further, the purchase of the Exocet missile and the approach to funding for development improvements within the manufacturing delivery period was linked to a royalty. Contractually this is on record for the first time.

It is also of interest to state that the author as sole arbitrator of all defence procurement contracts and in that capacity had many difficulties in obtaining the required evidence to move in various matters. It was only after he exerted his executive authority as Administrative Head/Chief Accounting Officer of the Ministry of Defence Production that the same was available to him very quickly. Thereafter it was possible to proceed. The conclusion is that it was only on account of executive authority that matters moved. It would be worth considering very carefully whether any other external agency could have moved in a similar fashion and obtained results? The need, therefore, is to ensure accountability of the executive resides within it. This is an imperative, if we are to progress.

Can the methodology used by successful project implementation by the Ministry of Defence Production be replicated elsewhere? The answer is a resounding yes provided we have learnt to distinguish between the form and content of a problem. Problems assume few forms, but the content of no two problems are hardly ever alike eg an auditor in his office and a submarine spotter in an aircraft are both subject in their work to similar sampling and observational errors. The auditor with many vouchers to examine and the spotter an expanse of ocean. Both are involved in **search** procedures, which is the form of the problem.

The examples given above are based on good governance and the methodology or processes involved are transferable to apparently dissimilar activities. The author who had qualified in process engineering (chemical engineering) had had no exposure to armaments. Yet in the 1973-78 short period had successfully laid

the basis of several defence related capabilities. Some produced spin off benefits in the private sector. Systematic efforts need to be put in, in this direction, combined with relevant post-experience training programmes of the general/coordination training on-the-job of which we have precious little.

"As the correct solution of any problem depends primarily on a true understanding of what the problem really is, and wherein lies its difficulty, we may profitably pause upon the threshold of our subject to consider first, in a more general way, its real nature, the causes which impede sound practice, the conditions on which success or failure depends; the directions in which error is most to be feared. Thus we shall more fully attain that great prerequisite for success in any work --- a clear mental perspective, saving us from confusing the obvious with the important, and the obscure and remote with the unimportant".

A Mellon Wellington (The Economic Theory of the Location of Railways 1877).

MESSING IN PAKISTAN

by Masood Hasan

Introduction to the Mess

What with the conflicts going on within and around us, should we not do something to resolve those within the country. Of course, there is no single solution to bring us out of the woods. If it is possible to attack a big problem in part, the solving of which can have a multiplier effect it should be one facet that should be addressed as a top priority.

No one can deny we are in the throes of severe moral decay which reflects itself in many ways. One symptom is corruption. Not that this is anything new, but it appears we are moving fast from a failed government to something far worse. No one can deny that the two of the three traditional pillars of state are being needled by the judiciary, which is fighting a valiant battle to ensure its own survival for all of us. For survival it is. No one can deny that the executive arm of the government is chasing its own tail in a fog of hypocrisy. This is reflected in several of the well known scams, the circular debt, inaction by our water losses to counter Indian water terrorism (eg Baghliar). The list could be expanded. Locally look at what happened in Sialkot on more than one occasion.

No one can deny that the executive is reluctant to take action on critical judgements of the supreme judicial body if only through interminable delayed "action". Justice delayed in justice denied. Executive action that should be taken, and if not at the right time is far worse than at the wrong.

Who can deny that many our legislators firmly believe that a fake degree is a degree to be reckoned with! It escapes their attention that an immoral foundation must lead to higher levels of moral

decay. We are working towards becoming history, rather than making it!

Can any one deny, if the skimming of billions of rupees of taxpayers money were put into vertical circulation the middle and lower classes peoples of Pakistan would have a much higher quality of life. In fact there would be no poverty. Conditions are getting more and more miserable for the vast majority of our 175 million. The current floods have disrobed all the civil government institutions, not to talk of many politicians.

Who can deny that such a disequilibrated condition will not lead to social earthquakes in an effort to find an new but equitable equilibrium or at least something better? Remember has it not been said that God will never permit the obliteration of any society that looks after its citizens fairly, even though they may be steeped in "shirk" (for which they will have to individually answer for later).

The malaise list can also be expanded, but to what effect? Don't we know all this? What we do not want to learn is how to harness technology to help us out of this self-excavated hole which we have readily jumped into. Technology provides the know-how to solve problems all sorts in man made systems, be they of transportation, of water, of institution building etc... Digitization is the preferred pathway : by no means easy, maybe capital intensive in absolute terms, but with long term benefits continuing, provided we ensure its proper maintenance. After all it is based on knowledge, and knowledge is priceless. There are so many facets that need to be attacked but let us look at one which could have a massive domino effect with low capital investment affecting the improvement in the effectiveness of state governance ie improving productivity. Look at the rubbish bins of old, followed by triangular skips, now large rectangular skips, there are two outside my residence and that is also growth of the kind that should not be our goal.

Can anyone deny that making existing assets more productive is the best way of initiating constructive progress? The capital investment has already been sunk. It appears we are fearful of upsetting the abominable status quo. But remember time can never be recycled, it advances whether you like it or not.. Being courageous is not the absence of fear, it is the will to do what is right even though one may be afraid. This is what really matters in the executive processes. The approximately correct decision at the right time is much better than the perfect, long after the event. This is where confidence in top management is necessary. This is also where judicial accountability works against this concept because it is curative. We must look forward, and that is prevention. It means not finding out all the wrong answers (easy enough) but asking the right questions (try it). Believe it or not, the judiciary will achieve the independence it wishes to sustain only when and until the Executive achieves its independence.

On trying to resolve the Mess

Pakistan came into being starting with the Vision of Allama Iqbal (with posthumous prompting by Syed Ahmed Khan). The Vision was converted into a Mission to achieve Pakistan by Jinnah, which he achieved. The need in achieving the Mission, led to the definition of the Goals/Objectives that prompted Jinnah's lieutenants to investigate , e.g. electoral alliances. The Muslim League/Congress alliance we know led to the 1937 elections when the Indian National Congress unilaterally jettisoned the Muslim League leading another route to Pakistan, in which the Muslim Youth were also harnessed. The Dawn newspaper started publication (founded by Jinnah) our disassociation from the Quit India movement, electioneering to the assemblies, increasing the membership of the Muslim League Each had its own Objective or Goal to help achieve the Mission.

The next stage was to work this out to move ahead. This stage was basically of Strategy or allocating resources for whatever had

to be physically achieved including, amongst others : naming individuals and defining what they had to do, raising funds, increasing Muslim League membership, organizing processions, preparing memoranda, dealing with the local administrations, checking electoral rolls and arranging transport getting donations. This is the statization stage .

To meet the above needs of the Strategy (allocation of resources) detailed instructions had to worked out, a secretariat and several offices (regional/local) were set up because this is the level where the physical work was actually accomplished. Strategy is therefore more flexible than the other requirements.

To summarize : the Vision/ Mission/ Goals-Objectives/ Strategies which are intellectual activities, performed away from the madding crowd, in meetings sitting in comfortable surroundings.

Looking at our current situation, what with drones, suicide bombings, the terrible flood, even increasing scams (when ERRA is investigated, it will be the biggest by far), political shenanigans, denying flood hit Sindhis access to Karachi, forgetting how they welcomed all those who escaped with their lives in 1947. The list makes it difficult to see light at the end of the tunnel. We need to strive harder as enjoined by Quaid-e-Azam. There is no peak that cannot be humbled if we conquer ourselves first. "Self reverence, self-knowledge , self-control these three alone lead life to sovereign power" (Tennyson) is in conformity with what is given to us in our book of Guidance or the Glorious Quran. Fig 1 below indicates the above.

However, in Pakistan it now looks like this because of an additional tier. This is part of the big disconnect. This Void is basically an administrative no-man's land shown in Fig 2 below.

It is in the Administrative No Man's land and where the foundations of institutionalized corruption are well and truly laid. We need an



FIG - 1

accurate definition of the ground level systems and procedures (S&P), which must be kept current. No department can claim this, because they have not budgeted the resources annually (financial, human, equipmentwise) to ensure maintainability. The result is that the junior lackeys manufacture on the “spot” fixes, (like cricket fixing noballs at will, not to talk of wides). To amplify three examples are given below:

Obtaining a death certificate

On applying the applicant is asked fill in a form. The lackey then says the address given on of your residence is wrong. On being

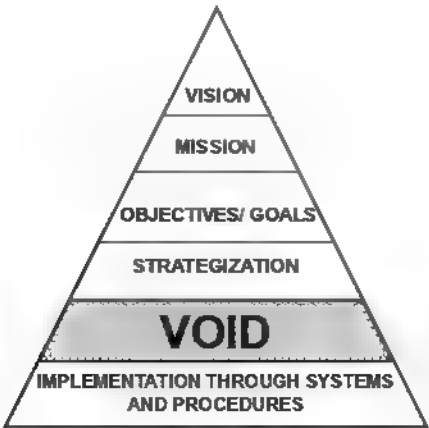


FIG - 2

told it's been there since 1947/48 he says that is incorrect, prove it to me (there is no known procedure/instruction to prove this wrong) and so it goes on. No senior officer dare interfere because the systems donkey work is far too much hard work to lay down on account of the disjointed procedural incrementation of red tape over the years. The result is speed money.

Police Complaint

Concerning a Police Station: Three vehicles were leased through a Bank. Two different agreements were prepared and signed with a gap of about two months. Under one agreement a Range Rover was obtained whereas under the second agreement a Toyota Corolla and a Mehran. The Range Rover was stolen and an application for theft was filed with the concerned Thana. An FIR was lodged and copies were sent to the Bank and Insurance Company. The Corolla and Mehran installments were paid regularly but after some time the bank sent some gundas who took possession of the cars for Range Rover for non-payment. The company got court orders that the SHO lodge an FIR against the Bank and gundas. The Bank somehow got to know and approached the Police Station, resultantly the matter was kept pending. Finally, the applicant was asked to visit the Thana to take part in the investigation. The lawyer visited the Thana and debated with the Police and Bank people. The point is, we were there to discuss as to why two cars were forcibly taken away by the bank using gundas when there were no arrears in installments, hence no default. We asked the bank to prove that if there was a default, they could not. If there was no default, then the bank's action was illegal and an FIR should have been lodged. But to our surprise, the bank and Police were insisting on bracketing the Range Rover case. They argued why are you not paying the installments of the Range Rover. They were told that the Range Rover case was entirely different and it had nothing to do with the cars and that we are here to discuss the court order; not the stolen Range Rover. Moreover, we explained that when you will call us

for Range Rover case, we will be there to discuss it, but today we are here to discuss Corolla and Mehran. But, they didn't listen to us. The conclusion is that the thana SHO concocted a procedure -- not authorized by any SOP -- on the spot ie in real time which is part of the, VOID, the administrative no-man's land. Would any senior police officer dare to put it right?

A semi-autonomous office

Was visited on the 3rd Floor, the lift was not used as it was liable to be affected without notice by power cuts which had actually been experienced – an earlier really bad experience, to deposit a letter with enclosures. There were three enclosures. (1) Revised Form-29 dated 31st October 2009, (2) Revised Form-29 dated 1st July 2010 and, (3) An Affidavit, cancelling the previous Form-29s of 2009-2010. At the reception the duty clerk refused to accept the letter saying why are you depositing revised Forms instead of a new one? He was told that this is none of his business, that he was there to accept and give a receipt of the documents handed over to him. But he insisted and refused to do so. Naukarshahi at its best. An approach had then to be made to the concerned Dy. Registrar, (the boss) ,he reluctantly signed on the letter and we went back to the same person and showed him the signature. The papers were accepted and a receipt obtained. The reception clerk had created a new procedure on the spot because there were no current SOPs. Incidentally the Dy Registrar's office was elsewhere, resulting in a lot of inconvenience. Does anyone think there is a relevant up to date SOP for this? Since there is not, the VOID includes this procedure as an unexpected no ball/wide, in real time

The above three examples are very condensed versions of real life. Multiply this by thousands. It's happening all the time. The administrative no man's land, is therefore, full of unpredictables, pot holes, mines, no balls, wides and what not increasing over the years as one lackey is replaced by another. The constant is speed money.

The situation may be better indicated in Fig 3 below.



FIG - 3

How does one get down to Level 6 through the thickets of no man's land which is unmapped territory? Level 5 (VOID) this level forms the disconnect between the intellectual activities in levels 1, 2, 3 & 4 and actual physical implementation through up to date SOPs. Unless Level 5 is defined explicitly and this information is available to the harassed citizen, he will always be at the mercy of Level 5 sharks. There are techniques to take care of this. These are the managerial tactics, which are explicitly defined in the form of SOPs. This ensures strategies can be successively achieved, because a defaulting individual can be held accountable by those who are responsible for proper departmental functioning (higher up). Otherwise, it will be like having a route map of Lahore of the year 1910 trying move from Neela Gumbad to house number 99 in Defence Housing Authority situated in Block X, Street 7. You will never ever arrive. Maybe after wasting time and fuel (ie money) arriving to find out that the inmate of House No 99 is out. Frustration all around. This also explains why the best plans are not implemented properly, leading to failures of Strategies.

The corruption at level 5 (fig 3) is of a different nature to that at the higher levels wherein it depends on providing a supplier/contractor/consultant favours at the expense of the State,

in the form of a prepaid kickbacks. We have much of this being worked out on a catch as catch can fashion. Call it Scamistan, Quickbuckistan, Kickbackistan or what have you. Each individual "corruptions" act can run into billions. At the implementation level involving this Void the sums of money involved are much less, but is happening all the time.

It follows that it is a fact that the devil always lies in the detail. In agreements, the fine print conditions disagreements e.g when obtaining a credit card or overdraft there are pages of fine print, this detail is all important. In computer programming it is exactly the same, all conventions must be rigourously adhered to and it goes down to binary, the ultimate in detail. In manufacturing the log sheets consist of operating details, which again are made use of later to determine in which shift, which operator did what to a particular machine providing an answer to why a particular lot/batch is not up to standard. Similarly the accountants cash book provides details at the operational level of the movement of money. Likewise the patwari's land record registers has details down to the last square inch defining ownership. It would not be out of place to mention, brought out in a recent article involving foreign policy by Arif Ayub in Nation that the Americans did not consider the inter tribe and sub-tribe rivalries (attention to detail!) which ultimately led to a wrong policy being adopted on the other side of the Durand line. The important point is that there has to be a methodology of recording all that is going on ie current status leading to success or failure of the expectations higher level intellectual activities mentioned earlier.

After all even if our macro economic indicators look good, the micro economy is not. Even if our plans are good implementation leaves much to be desired. Even if our strategies are excellent there are failures at the tactical levels. Even if our wholesaling is well worked out there is failure at the retail point of sale level; this has also been observed at Sunday bazaars.

The first requirement is to admit that the situation arises out of

the rejection of technological (amoral) inputs. Technology is the know-how to solve problems all sorts in man made systems, shows the way. We have consistently rejected this; witness results of several suo motos leading to excessive executive reaction at the higher levels. Recognition of this big disconnect (VOID) will help in moving forward, reducing the fog of administrative behaviour. All defined processes do produce expected results consistently because they have an environmental transparency which makes it possible to keep matters in balance, making the incremental beneficial changes from time to time providing satisfaction to the stakeholders. The alternative is to add on incrementally disjointed adjustments (as at present), ending up in swathes of red tape which suits the lower lackeys as well as the higher ups who “benefit” from this form of mismanagement or misgovernance.

There are several techniques to map how work flows. The first stage is to provide a true reflection of current status with all its warts and imperfections, involving the stakeholders who “work” the processes (S&P). This exposure will make it obvious where matters go off kilter. Doing something about it comes later, in any case top management support is required. Since this article is meant to make us cognizant of the disease of misgovernance, it avoids attacking the main symptom ie corruption. This approach is preventive ie forward looking not trying to prove who is wrong, that should be left to the curative (penal) agencies who, so far have made a right royal mess of that too! The writer has made use of both extensively and intensively of the concepts brought out in improving institutional capabilities in several organizations over the years and firmly believes good practice produces excellent theory, not necessarily the other way around. It is such theory, firmly based on the scientific, empirical or the inductive method that can help resolve, to a very great extent, the self-made mess we are wallowing in.

A description of a powerful mapping technique was authored by the writer about forty years ago. It can be obtained through : www.masoodh12@gmail.com

THE STORY OF MASOOD HASAN'S FAMILY ANCESTORY MAP AND RESULTS OF THE MOTHERLINE AND FATHERLINE

Your ancestry

Masood, as you read through your results, you will gain a deeper understanding of where your genetic ancestry originated. The fascinating story shows just how closely connected we are.

Revealed within your DNA are the great migrations your ancestors took, which are today part of your genetic code.

Within this book you will see this come to life through personalised maps, historic information and simple to understand visuals.

Your results cover up to three areas of DNA:

- **Family Ancestry (autosomal DNA):** This part of the test looks at all your ancestors in recent times (approximately 5-6 generations).
- **Motherline Ancestry (mtDNA):** We bring your motherline to life exploring your direct maternal ancestry from your mother then all the way back to Africa.
- **Fatherline Ancestry (YDNA):** We bring your fatherline to life exploring your direct paternal ancestry from your father then all the way back to Africa.

Living DNA is the only company to show your DNA in context, allowing you to see how ultimately we are all made up of all of us.



Masood's Motherline

(Mitochondrial DNA)

Haplogroup R

Subtype R5a2

Summary Haplogroup R is the parent haplogroup to many of the major European haplogroups.

Masood's Family Ancestry

(Autosomal DNA)

- Asia (South) 72.1%
- Near East 17.3%
- Europe 8.7%
- Asia (East) 1.9%

Masood's Fatherline

(Y chromosomal DNA)

Haplogroup L

Subtype L1a1b

Summary Found predominantly in India, haplogroup L is most common in South Asia

How your family ancestry works

With the ability to sequence the human genome, our scientists have been able to test over 680,000 sections of your autosomal DNA which we refer to as your family ancestry.

The autosomal DNA is passed down from all your ancestors, and the combination makes up your basic genetic code, the particles of who you are. A typical profile provides the genetic history going back approximately 10 generations.

Your test gives you a percentage estimate across the population groups that your genetic code is compared against. Whilst exactly 50% of our DNA is passed down from our mother and 50% from our father, we receive variable amounts of DNA from more distant ancestors. Determining the geographic origins of these ancestors, especially if they contribute only a small amount of our DNA, is not an exact science.

Asia (South)	72.1
● Indian subcontinent	39.99
● Pashtun	20.39
● Sindh	9.3%
● Burusho	2.5%
Near East	17.3
● North Turkey	12.991
● Iran	2.9%
● Armenia and Cyprus	1.5%
Europe 8.7%	
● Germanic	4.7%
● Northwestern Europe	1.7%
● North Central Italy	1.3c
● Iberian Peninsula	1.1%
Asia (East)	1.9%
● North China	1.9%



The science

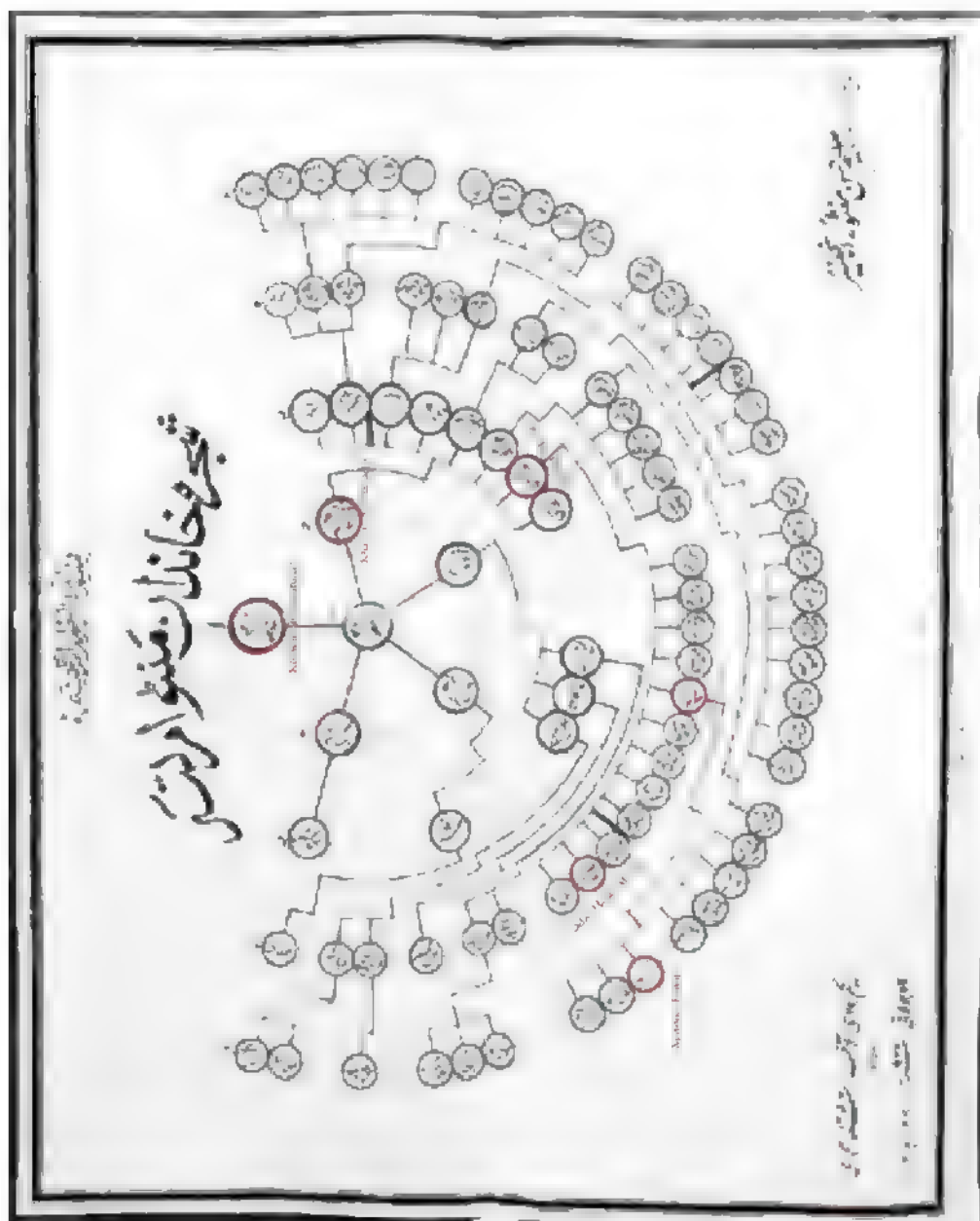
In order to determine your family ancestry, your DNA profile has been compared to thousands of known individuals from hundreds of different population groups. Using a statistical model, our geneticists are able to estimate what proportion of your DNA comes from which different geographic areas of the world both today and at different points in history. One of the unique features of our method is that it not only looks at each piece of DNA but also the way the DNA is linked together, thus providing more detail than any other test available today.



Your family ancestry map



FAMILY TREE OF MASOOD HASAN, MANTO'S GOING UP FOUR GENERATIONS



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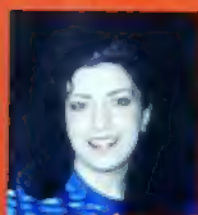
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*"To strive,
to seek, to find,
and not
to yield"*

*-Ulysses by
Alfred Lord Tennyson*



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